ACTA

Additional Information Package & Diary

ACTA Coaching Additional Information Package

Contents

GUN FIT / MEASUREMENTS

Gun fit is a vital component of clay target shooting.

As per the stock diagram.

- The cast at comb / heel will determine if the rib of the gun is in alignment with the shooters dominant eye. This is a most important and misunderstood part of gun fit.

- Cast at toe will influence the amount of can't of the barrels a shooter has.

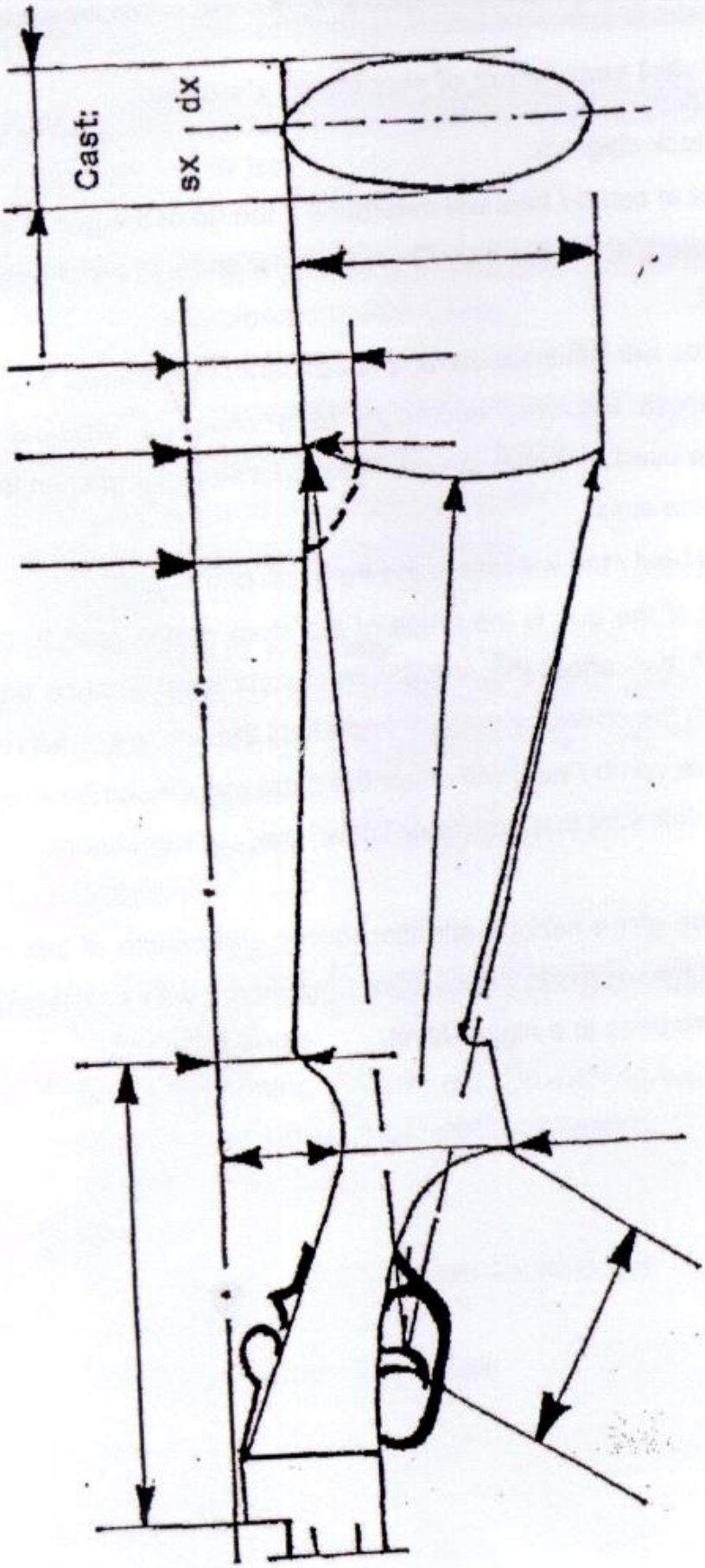
- Stock length will vary according to a shooter's physical build and the technique used to mount the gun. Incorrect stock length can lead to lifting the head off the stock. Length at heel / toe will determine the pitch of the gun.

- The pitch of the gun is the angle of the stock pad in relation to the rib of the gun. Pitch can affect the amount of muzzle jump, reduce the possibility of being hit in the cheek by the gun and affect the amount of felt recoil.

- The drop at comb / heel will affect the sight picture and how high / low a gun will shoot. It is vital that a shooter know how his / her shoots.

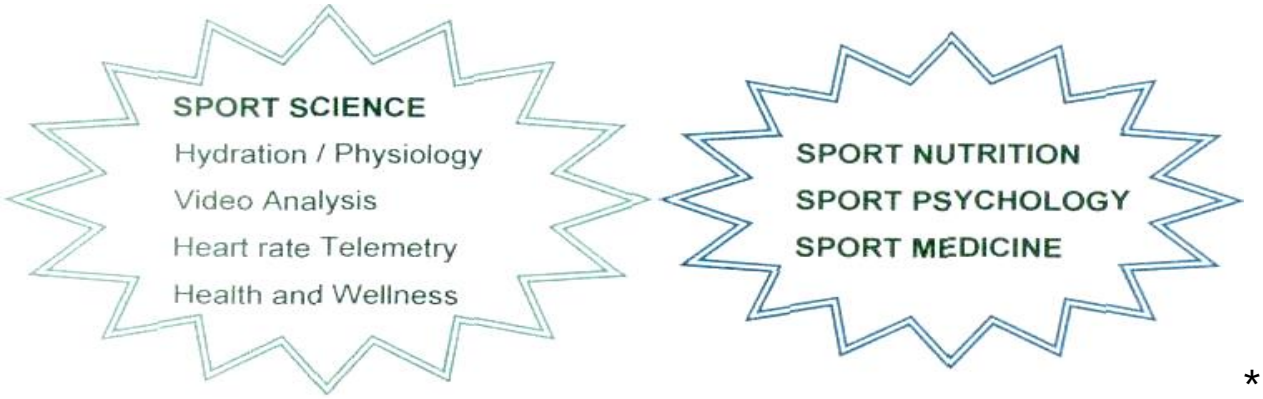
- This area will be given serious attention during the course of this camp as an ill fitting gun will impede a shooter's ability to compete with consistency, and affect their ability to progress to a higher level.

FIGURE 1: Stock diagram



HOW CAN SPORT SCIENCE HELP ME?

Sport science is exactly what you might guess; it is the science behind your sport. It covers an array of disciplines and expertise from physiology through to video analysis. We investigate the details of your sport, and in partnership with coaches and athletes, we develop solutions to the barriers that inhibit your best performance. Below is a brief list of some sport science disciplines and initiatives adopted by the National Shooting Team.



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Sport science can be considered the upgrade to your basic model; it takes your performance to the next level. Not only does your athletic performance benefit from sport science, but you begin to understand more about your body, and many strategies can be applied to daily living. Do not settle for an average performance. Instead, ask yourself what you need to be your best and sport science will help you find the answer.

PHYSICAL PREPARATION

General body warm-up (~10 mins)

Why?

To increase blood circulation to outer muscles and increase body temperature

This will allow the body to move more freely when shooting.

How?

5 mins jog including exercises to increase range of motion in the hips and shoulders. For example:

- Jogging backwards
- Sideways stepping
- Arm/shoulder rotations
- Holding a push-up position between runs.

THEN 5 x 30m run thrus beginning at 60% max (jogging speed) moving up to 80% of maximum speed. Walk back to start after each run thru.

Specific upper body movements (~ 3 mins)

Why?

To utilise muscle groups used during shooting through the use thera-bands.

This will help to increase control of gun movements.

How?

- Arm raises (to the side and in front of body)
- Diagonal arm draws

1 set of each exercise, 6-8 repetitions, on both sides of the body.

Co-ordination exercises (~ 2 mins)

Why?

To increase hand-eye co-ordination and neural activation pathways.

This will increase awareness and decrease reaction time during shooting.

How?

- Tossing a tennis ball against a wall (or to a partner) at 3 different heights: low (below knees), medium (waist height), high (head height).
- Single handed, both sides, 5 times at each level.

Event related movements (in the mounting yard)

- Gun in hand
- Imagery/visualisation of targets and movements

Stretching Program

Why?

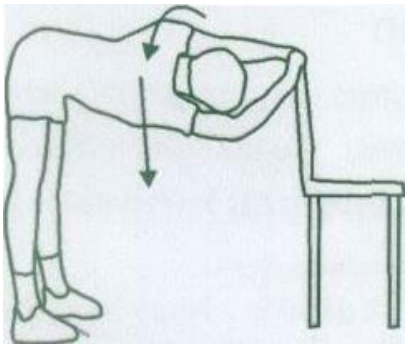
To be completed as part of cool-down and physical recovery.

This will help to promote recovery and maintain range of motion in joints

How?

- Hold each stretch for 10 seconds, repeating 3 times.
- Base 4 stretches plus any individual areas needing attention.

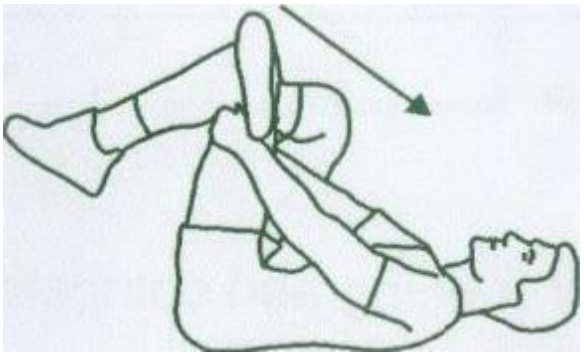
Spine extension + rotation stretch



Hip flexor

Low back rotation

Gluteal stretch



Hydration Strategy

One easy way of beating any heat encountered in Lonato is though hydration.

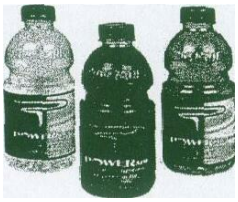
The aim of this strategy is to have 100% of the team hydrated in the lead up to and during the competition.

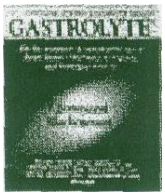
There are 2 parts to this strategy, each quite simple but the combination will ensure you are not adversely affected by dehydration.

1. Flight

We are trying to establish good practices within the squad to reduce the effects of jetlag. Planning your trip and your fluid intake will greatly reduce the load on your body from the flight. We recommend the following:

- Bring onto the plane:
  A 1.5 litre bottle of water,
  A sports drink (500-600ml),
  and some Gastrolyte (available from chemists).





- The sports drink is to be consumed with a serving of Gastrolyte in the first hour of the plane trip. It is to assist in absorption of fluid, as most of you already know when you fly your body dumps a lot of its fluid and you dehydrate easily. Stay away from coffee, tea, alcohol and fizzy drinks. Tomato juice with a little salt is excellent.

- The water is to drink at 250ml (1 cup) per hour you are awake. This will make you go to the bathroom regularly but it will really help you fight jetlag. Going to the bathroom will also allow you to stay active frequently throughout the journey, reducing the potential for muscle stiffness.

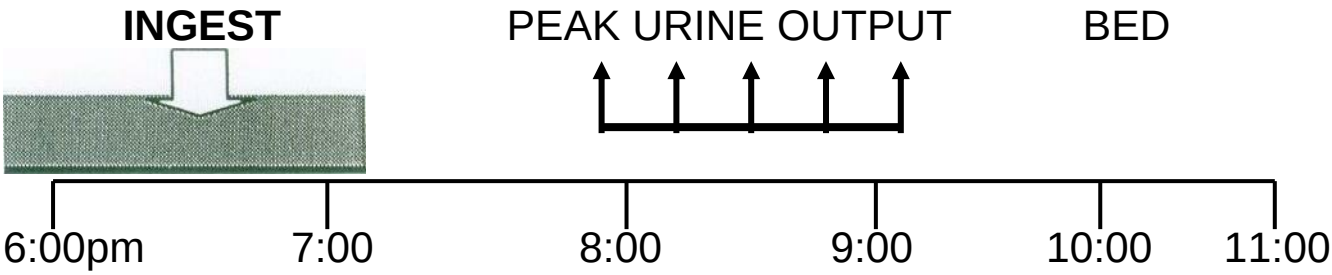
- The post flight drink: this will help replenish the fluid lost from the flight. Post flight recovery is crucial as you will never be able to keep up with fluid loss over such a long flight. When you go shopping for food after arriving in Lonato to purchase your drinking water and food grab a sports drink as well (or take some sports drink powder with you on the plane). Drink this with some Gastrolyte as soon as you can.

2. Each evening

Pre-training or pre-competition nights

Between 6pm and 7.30pm each athlete should consume 1 litre of water (4 cups). This hydration regime will ensure you wake up in a hydrated state. You will make frequent trips to the bathroom, a small price to pay to establish good habits in preparation for your event.

- **A tip:** If you go to bed early make sure you finish drinking 3 hours before bed; this will mean you are not getting up during the evening to visit the bathroom.



After training and competition

Consume 500ml of sports drink with Gastrolyte and 500ml of water. The combination will ensure you are replenishing fluids lost during your events, enhancing your recovery and making sure you can perform at your best the following day. Note: sports drinks contain high amounts of sugar and can lead to weight gain if consumed unnecessarily.

It is important to know that plain water is not an effective rehydration solution following prolonged exercise! However, its effectiveness is improved if taken with a meal (including sodium). Increasing sodium intake in the post-exercise meal (i.e. adding extra salt, high salt meals: chicken soup, risotto) will improve your body's water maintenance and rehydration success.

After you complete your training or competition for the day and have a drink, you should have at least 5 mouthfuls each time to maximise consumption.

THE BENEFITS OF PROPER HYDRATION INCLUDE:

- Greater blood volume => increase oxygen supply to muscles and brain => Improved concentration and muscle control
- More efficient heat loss when competing => Lowers core body Temperature ==> improves performance

NUTRITION for shooting performance

Prepared by Joanna Shinewell, VIS Sports Nutrition

Why is nutrition important?

Nutrition provides the base for good general health as well as:

- Prevention of fatigue acute and chronic
- Improve concentration
- Contributes to body fat levels, muscle mass and growth
- OPTIMAL PERFORMANCE

Glycemic Index (GI)

A ranking (0-100) given to CHO which indicates the rate of which that CHO is digested and delivers glucose into the bloodstream

HIGH GI - foods release glucose quickly into the blood

LOW GI - foods release glucose slowly into the blood but the response is more sustained

The main goals of pre-competition nutrition are to:

- Maintain blood glucose levels
- Ensure optimal hydration
- Prevent hunger, settle stomach
- Familiar and enjoyable

Need to allow adequate time for digestion:

3-4 hrs for a large meal
2-3 hrs for a small meal
1-2 hrs for a liquid meal
<1 hr for a snack (depends on own tolerance)

Food eaten 1-2 hrs pre exercise should be high in CHO and low-mod GI. Foods high in fat & protein take longer to digest & may cause tiredness or nausea

HOW TO STAY AT YOUR BEST

Tips on travelling - Nutrition and General

- Take fluids with you to maintain optimal hydration
- Pack healthy snacks which need minimal storage fuss
- Avoid coffee tea, carbonated drinks and alcohol
- Do some stretching in your seat and walk around every hour to prevent soreness and pins and needles.
- When you arrive, do some exercise/light training. Organise with a partner to do 15 minutes of moderate intensity exercise (quick walk).

Beating the Heat and Humidity (+ 28° C)

Remember:

- If a cool vest is available or offered to you, wear it!
- If ice-cold sponges are available. Use them! Towel yourself down after you use the sponges. Leaving sweat and water on your skin will heat you up
- Keep out of the direct sun as much as possible, this will reduce sweat loss

Post-training/competition:

- **Quickly re-hydrate.** Hot temperatures and high humidity cause high fluid loss through sweating and more fluids are required. In this instance sports drinks will help you retain more of the fluid you drink than straight water. For the national team members, weight loss during competition is measured and indicates how much fluid has been lost. 1.5 L of sports drink per 1kg of body weight lost is recommended.
- If a cool vest is available, put it on immediately
- Have a cool or hot/cold shower as soon as possible after the match to aid recovery

SPORT PSYCHOLOGY PROGRAM

Prepared by Harriet Speed

The primary aim of the sport psychology program is to assist athletes in developing a range of mental skills to enhance shooting performance in both training and competition.

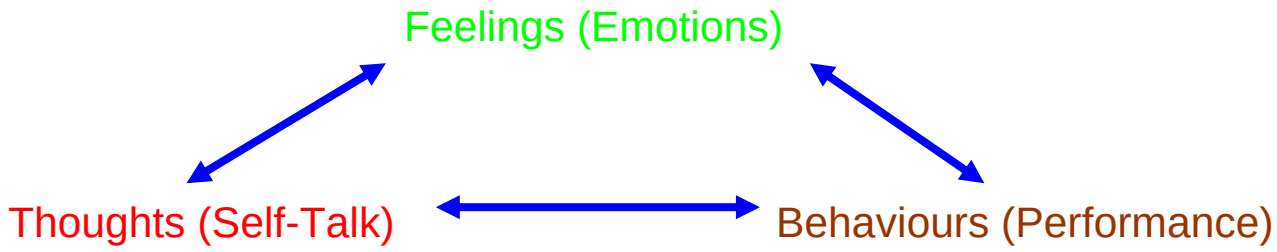
All members of the ISSF- junior squad have spent, and will continue to spend, considerable time and effort training in the technical and physical aspects of shooting. The sport psychology program targets an equally important part of training, that of mental skills training, which focus on techniques to successfully deal with the various ways in which the mind can affect shooting performance, and conversely, the ways in which shooting performance can affect an athlete's mind. Some examples of common issues covered in a sport psychology program include:

- Dealing with competition nerves
- Building self-confidence
- Staying motivated
- Coping with pressure
- Maintaining focus
- Dealing with obstacles

The sport psychology program also provides limited confidential personal counselling to athletes. Athletes, like anyone in the general population, experience a range of personal issues (e.g. family conflict and break-ups, depression, anxiety, grief) that may distract or interfere with their performance or enjoyment of the sport.

THOUGHT - FEELING - BEHAVIOUR INTERACTIONS

Prepared by Sean 0. Richardson, M.A., B.A



To understand how we may influence performance with mental skills, it is useful to look at how our ***thoughts*** and ***feelings*** influence ***performance.***

- Many athletes have had the experience of feeling great coming into a competition (feelings), having positive thoughts that keep them focussed (thoughts), and then finding their performance is right on the money (behaviour).

We can also look at how ***past performance*** influences current ***feelings*** and ***thoughts***, and ***future performance***.

• Many athletes have also had the experience where a bad play or poor shot (past performance) gets them frustrated or upset (feelings), followed by some self-deprecating thoughts or remarks, such as "I am useless", (thoughts), which then leads to more bad play or poor shots (future performance).

Knowing about the interactions among thoughts, feelings, and performance, we can work on interrupting negative thoughts and feelings, replacing them with positive thoughts and feelings, and setting ourselves up for optimal future performance.

MAINTAINING FOCUS: MENTAL SKILLS PRACTICE

BREATHING

Going back to the thought-feelings-behaviour interaction, we know that whenever we experience something, things happen in our head and in our bodies. Most often when we are frustrated, distracted, or stressed, we tend not to breathe very well. Therefore, the simplest thing we can do to gain some control over our state and get refocussed is to concentrate on our breathing. Deep "belly breathing" helps to relax our bodies and our minds.

THOUGHT-STOPPING

We also know that those destructive thoughts can lead to more negative feelings, more negative thoughts and more poor performance. Therefore, we can try to interrupt the flow of negative thoughts by simply saying "Stop!" to ourselves; alternatively, some people like to use a hand or body gesture of "sweeping away" or "shaking off' the negative thought; finally, some people also like to use an image to stop negative thoughts, such as changing the channel on a TV to something more positive.

CUE WORDS

In addition to getting control of ourselves through breathing and thought-stopping, we can energise and refocus with some positive thoughts. Here, we can choose, or make up, a number of cue words or phrases that symbolise the positive things we need to focus on. Some people will combine a cue word with their breathing to help calm them; some possible cues are the following: calm, loose, balance, smooth, patient, control, centred. We can also use a cue after the thought-stopping to get us thinking positively; some possible cues are the following: focus, solid, challenge, energise, strong, determined, and tough.

HOW TO USE THIS DIARY

- This diary is to be given to all Australian Junior shotgun athletes.
- Read over the diary. Make yourself familiar with all sections of the diary.
- Keep this diary accessible each morning, at training and competition.
- This diary may also be used to store any information including your Strength & Conditioning Program, Physiotherapy and Massage notes.

Each morning:

- Complete the daily health/injury survey

Each evening:

- Complete the planner for the following day

After training/competition:

- Fill out your pre-training/competition routine details
- Reflect on all aspects of performance to assist you for your next performance.

Other tasks:

- Read up on how to achieve recovery throughout travel, training and competition
- Use the nutrition tips to help you refuel and recover
- Important: read the section on how to beat the heat and humidity. This could have a huge impact on you during competition.
- Read up on information so that you avoid illness

DAILY SECTION

FILL OUT THE FOLLOWING SECTIONS DAILY:

A. Daily planner (to be filled out the night before)

B. Health/Injury Survey

C. Physical preparation diary

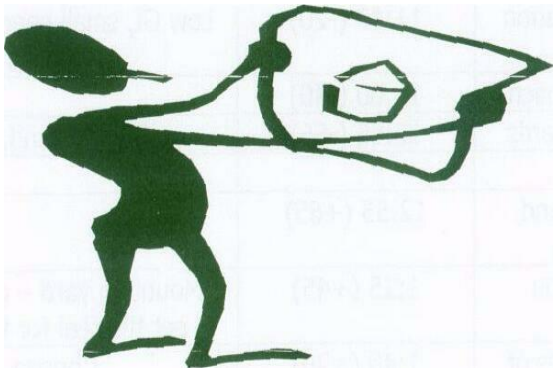
DAILY PLANNER

Action	Time to comp/training (minutes)	Comments/reminders
Wake up	7:40 (+200)	
Breakfast	7:50 (+190)	BIG feed, healthy foods!!
Shower and dress	8:15 (+165)	
Check I have everything	8:35 (+145)	Gun, ammo, glasses, sunscreen etc
Board bus for range	8:40 (+140)	
Arrive at range	9:00 (+120)	
Familiarise with range/ conditions	9:10 (+110)	Walk around, deep breaths, get a feel for the weather, wind, atmosphere
Warm-up and stretch	9:55 (+65)	
Put gear on	10:15(+45)	Mounting yard - gun on shoulder, get the feel for the movements
Study targets of prior round	10:30 (+20)	Choose glasses
Start to visualise	10:50 (+10)	
Marshall at range	10:55 (+5)	
First Round	11:00 (+0)	East Range
Finish round	11:20	
Stretch down	11:30 (-10)	Take mind off previous round/switch off
Disrobe, pack gun away	11:35 (-15)	
Start dehydration & eat	11:40 (-20)	Low GI, small snacks, think healthy, sports drink
Chat with coach	12:00 (-40)	
Play some cards	12:15 (-55)	Bum around, read, relax
Warm-up and stretch	12:55 (+65)	
Put gear on	1:15(+45)	Mounting yard - gun on shoulder, get the feel for the movements
Study targets of prior round	1:40 (+20)	Choose glasses
Start to visualise	1:50 (+10)	

Marshall at range	1:55 (+5)	
Second Round	2:00 (+0)	West range
Finish round	2:20	
Stretch down	2:30 (-10)	Take mind off previous round/switch off
Disrobe, pack gun away	2:35 (-15)	
Start recovery (drink and eat)	2:40 (-20)	Low GI, small snacks, think healthy, sports drink
Chat with coach	3:00 (-40)	

How to use the planner

1. Mark in events/actions that are concrete i.e. cannot be changed. E.G. training time, competition time, bus leaves hotel, equipment check, marshalling for event.
2. Plan your preparatory actions for concrete events by working backwards. eg. If I need to be in the marshalling area at 10:50am for my event, then I will have to begin my warm up 30 minutes prior to that at 10:20am.
3. Then, work forwards from the concrete event to plan your recovery/preparation for the next event for your day.
4. Use the 'comments' column to assist you in performing the action successfully. Key focuses and reminders for each action can be useful.



HEALTH / INJURY SURVEY

THIS FORM SHOULD BE FILLED OUT AT THE START OF EACH DAY

Date: __/__/__ ☐Mon ☐Tues ☐Wed ☐Thurs ☐Fri ☐Sat ☐Sun

1. How well did you sleep last night?
1 2 3 4 5 6 7 8 9 10
Poorly, tossed and turned Like a baby

2. How many hours of sleep did you get?

3. How 'well' you are feeling today?
☐Excellent ☐Very good ☐Good ☐Average ☐Poor

4. Do you have cough/cold, runny nose, headache or sore throat?
☐Yes ☐ No

5. Do you have any other type of sickness/illness?
If yes, please specify? ☐Yes ☐ No

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6. Do you have muscle soreness? If so rate it and describe where it exists. ☐Yes ☐ No

☐Extreme ☐Very sore ☐Sore ☐OK ☐None

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7. Are you injured? If so, how? ☐Yes ☐ No

8. Any other comments about your health, injuries or illnesses:

Note: If you are unwell, sore or injured, please see any of the support staff to discuss this

	Competition Key	Date of Month
A	Club	Physical Preparation
B	State	Swim
C	National (including Aust Cup, Nationals & Aust Cup)	Jog/Walk
D	Regional International (eg Oceania)	Gym
E	Full International (World Cup, Commonwealth Games)	Bike
		Stretching
		Other (please List)
	Weather	Training Skills
S	Still	Skill Training (Live Firing) – DTL
B	Breeze	Skill Training (Live Firing) – Skeet
W	Very Windy	Skill Training (Live Firing)– Double Trap
D	Dull	Skill Training (Live Firing) – Trap
C	Clear	Other (please list here)
G	Glary	Training – Competitions
		Training Competition – DTL (total shots including final)
	Venue Key (enter you own)	Training Competition – Skeet
A	Cecil Park	Training Competition – Double Trap
B	Newcastle Lake Macquarie	Training Competition – Trap
C	Cessnock	Competitions
D	Wagga	Competition – DTL
E	Griffith	Competition – Skeet
F		Competition – Double Trap
		Competition – Trap

Date:
Time (minutes)

Time	Shots	Venue

Time	Possible	Score	Final	Venue

Weather	Possible	Score	Final	Place	Win Score	Comp Type	Venue

TRAINING AND COMPETITION DEBRIEFING

Do you have a pre-competition routine?

- How much sleep do you try to get the night before competing? Do you have a way of guaranteeing this amount?
- How do you like to feel (mood) on the morning of a competing?
- Do you like this mood to change during the day? > What do you like to eat before competing? > What routines do you have by way of organisational tasks (packing your
- Gear, cleaning or checking your equipment)? » Do you try to take a "relaxation break" before the competition^{0}
    - When? For how long?
    - What do you do after?
- Have you got a plan for using the bus/car trip to the track to help you set your mood or otherwise better tune in to what is going to happen?
- When do you like to go over your competition plan in your head?
- Do you have any routines by way of getting comfortable (taking possession) with the venue on competition days?
- How do you cope with all the other people around before you compete (coaches, family, friends, opponents, officials)?
- Do you have a stretching routine that you use before every round^{0}
- Do you approach warm up in a systematic manner?
- What do you do to raise the intensity of your focus on the various jobs you have to do during a competition?
- What plan have you got for pre-competition talks?
- What do you do to control pre-competition nerves?
- What attitude do you like to have towards your opponents?
- What do you do once you get out on the range?

FILL OUT THE FOLLOWING SECTIONS ON COMPETITION AND TRAINING DAYS:

1. Pretraining/competition routine
2. Event debriefing

PRE-TRAINING ROUTINE

Date:
__/__/__ Venue:_____ TrainingTimes:_____

What did you do the night before the training? _____
_____

How much sleep did you get? _____

What did you do:

• First thing in the morning?_____
_____

• Eat for breakfast?_____

• Eat for lunch?_____

• Do at hotel / home before leaving for the range?_____

• Do upon arrival at the range? _____

• Do in the preparation area?_____
_____

• No/discuss during the talks with your coach?_____
_____
_____

• Do during your warm-up?_____
_____

• Do as you went out on the range before each round?_____
_____

- How ready were you to shoot at each round?

1) Not at all 1 2 3 4 5 ready
2) Not at all 1 2 3 4 5 ready
3) Not at all 1 2 3 4 5 ready
4) Not at all 1 2 3 4 5 ready

If not, why:_____
_____

- How consistent was your pre-competition routine?

1) Not at all 1 2 3 4 5 exactly the same
2) Not at all 1 2 3 4 5 exactly the same
3) Not at all 1 2 3 4 5 exactly the same
4) Not at all 1 2 3 4 5 exactly the same

If not, why:_____
_____

- How confident were you at the start of each round?

1) Not at all 1 2 3 4 5 very confident
2) Not at all 1 2 3 4 5 very confident
3) Not at all 1 2 3 4 5 very confident
4) Not at all 1 2 3 4 5 very confident

If not, why:_____
_____

- How well did you shoot each round?

1) A Mare 1 2 3 4 5 Blinder Score:
2) A Mare 1 2 3 4 5 Blinder Score:
3) A Mare 1 2 3 4 5 Blinder Score:
4) A Mare 1 2 3 4 5 Blinder Score:

If below standard, why: _____
_____
_____

TRAINING DEBRIEFING

Record how well you did each of these jobs:

Pre-training: How good was your:

Organisational preparation	1	2	3	4	5
Self confidence	1	2	3	4	5
Ability to adhere to daily plan	1	2	3	4	5
Physical preparation (week leading up)	1	2	3	4	5
Warm up	1	2	3	4	5
Mental preparation	1	2	3	4	5
	/30				

Training: How well did you:

Remain confident and assertive	1	2	3	4	5
Shoot to the game plan	1	2	3	4	5
Control Distraction	1	2	3	4	5
Control Emotion	1	2	3	4	5
Feel relaxed	1	2	3	4	5
Set realistic goals	1	2	3	4	5
	/30				
TOTAL	/60				

What score did you shoot? ___ /___

Things that I want to fix/make note of:

_____

_____

_____

_____

TIPS ON FLIGHTS

- Take a 1.5 litre bottle of water, 1 sports drink and some Gastrolyte on the flight with you, see Part 5: Hydration section for flight drinking strategy
- When you get on the plane drink the sports drink with one measure of Gastrolyte. In addition drink at least 250ml (1 cup) every hour you are awake
- Do some stretching in your seat and walk around every hour to prevent soreness and pins and needles.
- Avoid coffee tea, carbonated drinks and alcohol
- Adjust your watch to Lonato time when you board the plane (9 hours behind Melbourne time)
- Use eye patches to help you sleep. Note, some airlines may try to give you food during the night so let them know if you wish to be woken or not
- When you arrive, do some exercise/light training. Organise with a partner to do 15 minutes of moderate intensity exercise (quick walk). This will help acclimatise to the weather conditions and reduce the effects of jetlag
- Try and stay active during the day, this will enable you to stay awake until your normal bedtime

Other tips for long flights:

- Pre-book a window or exit row seat to allow more room
- Pack healthy snacks which need minimal storage fuss
- Consult your doctor before using pharmaceutical intervention to combat sleep difficulties
- Familiarise yourself with the cultural profile of the country you are travelling to
- Avoid overeating as your inactivity on the plane means that you don't need to eat as much
- Adjust your meal times to the times of the country you are travelling to

TRAVELLING TIPS - NUTRITION AND GENERAL

You are permitted to take packaged foods with you into another country. Foods you might want to take include:

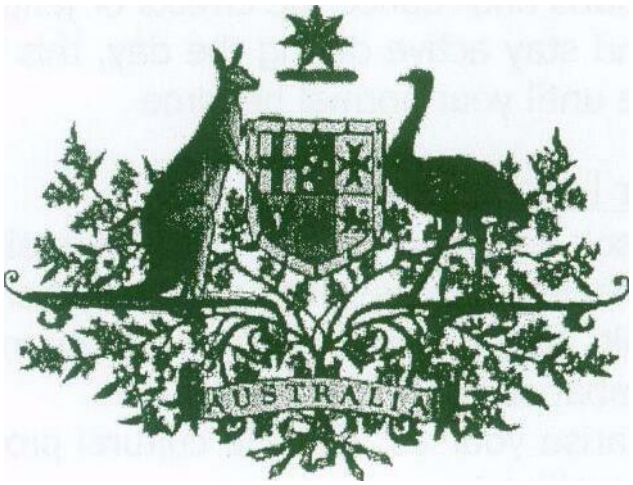
- your favourite dried fruits
- muesli bars - chunky or oat/wheat based
- chewing gum
- light snacks
- favourite box of cereal

Knowing what you are eating by taking these foods will help you to monitor your nutrition and reduce any stresses that come with eating foreign foods.
These snacks can easily be consumed on the bus to and from the range and also between training and competition rounds. They will also come in handy if the food provided on the plane is below standard.

GENERAL TIPS

- Taking your own pillow on the trip can reduce discomfort
- You will be travelling as a team. Look after yourself foremost and look after your fellow team members.

Finally, **enjoy yourself!** Be confident in your approach to competition and your preparation.



BEATING THE HEAT AND HUMIDITY

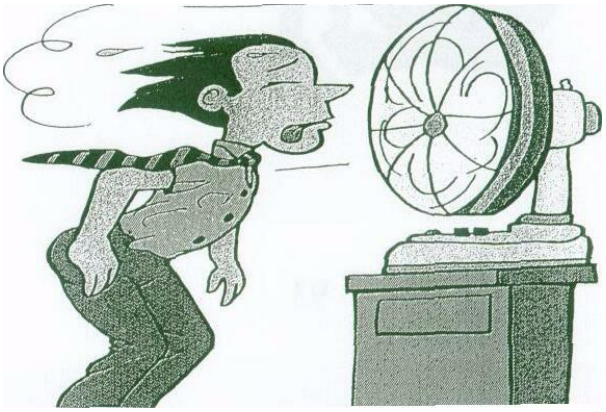
The competition destinations overseas and within Australia may be very hot and humid. If you are not acclimatised to cope with humid conditions, some simple guidelines should be followed to optimise performance and to prevent heat illness.

Remember to:

- When you have a drink after your training/competition you should take in
- approx. five (5) mouthfuls of fluid to maximise fluid intake
- Carbohydrate sports drinks will be more effective/helpful to you in the
- heat because of their electrolyte content
- If a cool vest is available or offered to you, wear it!
- If ice-cold sponges are available. Use them! Towel yourself down after
- You use the sponges. Leaving sweat and water on your skin will heat you up
- Keep out of the direct sun as much as possible, this will reduce sweat loss

Post-training/competition

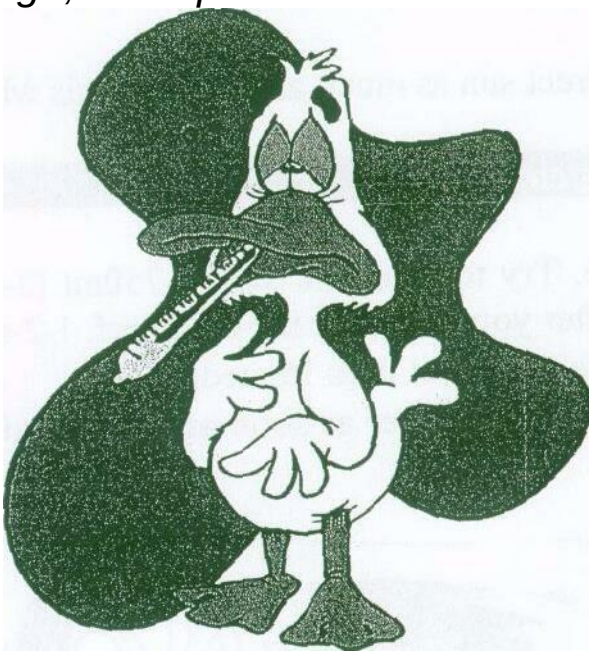
- Quickly rehydrate. Try to consume 500ml-750ml (2-3 cups) an hour for the first 3 hours after you finish for the day (pref. 1-2 sports drinks)
- If a cool vest is available, put it on immediately
- Have a cool or hot/cold shower as soon as possible after the match to aid recovery



AVOIDING ILLNESS

- Always maintain good personal hygiene, especially in poorer or third world countries
- Always wash your hands with soap after using the toilet
- Never drink tap water unless it is boiled or purified first
- Use bottled water, or other pre-packaged drinks. Eg: bottles or cans of soft drink, hot drinks such as tea or coffee, or possibly jugs of water provided and regularly refilled by the more up market hotels
- Refuse ice in drinks
- Avoid salads (as they are washed in water)
- Always peel fruit (or wash it in purified water)
- Choose restaurants where the staff, surroundings and food appear clean
- Choose restaurants where there are plenty of people eating, as news of a source of illness usually results in less patronage
- Never eat food from street stalls
- Eat hot, freshly cooked food if choices are given
- Never eat raw seafood

Prepared by Karen Inge, VIS Sports Dietician.



LOW GLYCAEMIC INDEX FOODS

Breads:

Perrormax (Country Life)
Ploughman's Whole-Grain (Quality Bakers)
Multi-grain 9-grain (Tip Top)
Holsom's Wholemeal with Wheatgerm (Tip Top)
Burgen Mixed Grain (Tip Top)
Burgen Oat Bran and Honey Loaf with Barley (Tip Top)
Burgen Soy and Linseed (Tip Top)
Sourdough rye
Heavy fruit bread/Raisin bread

Dry biscuits and crackers are generally high glycaemic index

Breakfast Cereals:

Processed bran cereals eg. All-Bran
Rolled oats/Porridge
Muesli
Special K
Guardian

Cereal Grains:

Pasta
Instant noodles
Hokkien noodles
Bulgur (cracked wheat)
Barley, pearled
Mahatma Premium Rice (most rice is high GI, Basmati rice moderate GI)

Fruit:

Most fruits have low glycaemic index.
Tinned apricots, overripe bananas, paw paw, pineapple, rockmelon, dried fruits (except dried apricots/apples) have moderate glycaemic index.
Watermelon, lychees and dates have a high glycaemic index.

Vegetables:

Most vegetables have low glycaemic index. Potato and pumpkin - high glycaemic index, tinned beetroot moderate

CHECKLIST

1. DID I CENTRE MY FOCUS

2. WAS I SMOOTH

3. DID I FOLLOW THROUGH

4. WAS MY WEIGHT FORWARD

5. WAS I IN FRONT OF BEHIND

SETTING GOALS PLANNING AND ORGANISATION

GENERAL PRINCIPLES

If you don't know where you're going, any road will get you there!

As a coach you may be asked to help a wide range of people with a wide range of problems; from beginners to elite performers.

How you achieve your task can be likened to a journey with

A STARTING POINT ⟶ A ROUTE ⟶ A DESTINATION

Before you start you need to know where you are going, ie. a destination which is really **THE GOAL**

How you get there depends on the ease or difficulty of achieving the goal and the materials at your disposal.

You might say that what you need is a **STRATEGY**.

Your strategy must be
* Achievable
* Simple
* Relevant
* Easily understood
* Flexible/ Adjustable

You will need to have a **REVIEW PROCESS** that enables you to measure performance and modify your strategy (i.e. training) if the results are not what you set out to achieve.

In reality the process of your planning and organisation looks like a circle

GOAL

ADAPT STRATEGY

MEASURE

Let's define these terms, because once you understand the principles, the process can be applied to novices or elite, individuals or groups:
GOAL What we want to achieve. May be

Quantifiable e.g. Shoot 25/25 in double barrel in 3 months' time, or
General e.g. Qualify into B grade.

STRATEGIES Actions to achieve goals; will often change due to measurement of performance.
MEASUREMENT Requires setting of standards, e.g. 87% for B grade and measurement by recording.
ADAPTATION Change goals, strategies, standards to suit situation.

In our general example we might have attempted to qualify for B grade in 4 weeks. After 3 weeks with scores averaging 70% we can discuss the situation and modify the process in any of 3 ways:

- Change the goal eg. B grade in 3 months
- change the strategy e.g. buy a pallet each of clays and shells and Shoot all week until we reach 87%
- Change the standard e.g. set 80% as the goal with a view to success in C grade.

YOUR SUCCESS as a coach is dependent on your ability to analyse **YOUR** performance in the process and adjust to achieve success.

GOALS
A goal can be called a 'comfort zone of performance. It should be set by the shooter(s') in conjunction with the coach.

Goals can **REDUCE STRESS** if they are defined and easily achievable with a training programme; i.e., they can instil confidence.

However, goals such as 'winning the 1996 National Single Barrel Championship' can produce pressures into the programme, requiring the shooters) to **COPE**.

If we altered our goal to 'break each target as it comes', that **SET GOAL** can become a **MET GOAL** each time the shooter competes.

The key to a successful programme is to focus on the **SET GOAL**, given that we have a 50% chance of making it a **MET GOAL** before we start.

This is where our **SET GOAL** must be **REALISTIC** and **ACHIEVABLE**. If our shooter's skill level is such that he has only a 20% chance of success, he will lose motivation toward our programme. Such a case might be where the training targets are set to their extreme swing positions for a struggling C grade shooter,

PROGRAMME

The programme you set up will be dependent on the goal to be achieved and the raw material you have to work with. Let us look at 2 examples:

(a) ACTA Promotional Day.

* Participants will be inexperienced and lacking in confidence
* Physical necessities for successful shooting may be lacking, eg.
    # using a strange gun/ poor gun fit
    # day predetermined, weather may not be ideal
    # distracting influences such as friends/family preventing concentration
    # well-meaning 'old hands' may decide to help you coach, confusing the shooters further
* There may be many more participants than coaches where the ideal 'one on one' approach with an inexperienced shooter cannot be achieved.

SO WHAT DO YOU DO?

1. Set basic goals with the shooters, e.g. break one target in a round.
2. Set targets so that they are as easy to break as possible; perhaps straightaways off lane 3 for trap or low 7 targets for skeet.
3. Explain principles in simple terms before starting.
4. Try for reasonable gun fit for each person.
5. Squad shooters to minimise distractions
6. Keep Control
7. Give personal feedback and encouragement. USE POSITIVE TERMS.e.g., Don't say "You missed that one to the left"; rather "You'd have hit that with a bit more swing to the right".
8. Change tactics for problem shooters, e.g. one on one instead of group training.

(b) You have 2 shooters in AA grade who want a shot at the national single barrel championship

* Shooters are well skilled(AA).
* Shooters are motivated and have set a basic goal for themselves.
* Time frame will determine strategy.

1. Discuss with each shooter some achievable SET GOALS for their individual programmes; eg. shoot 50 single barrel targets in sequence.

2. Determine time available for each shooter for practice/competition. The programmes' mix of practice/competition will depend on their current level of success in single barrel shooting, or whether they have a 'problem' target. (This is often mental not physical)

*Here is where a **DIARY** is of utmost importance. Shooters training for improvement should keep a diary to record not just scores but shooting conditions, targets missed for both practice and competition. This will give both shooters and coach **FEEDBACK** and information for modifying the jointly decided programme.*

3. Set programme...mix of practice and competition with competition increasing closer to target date but finishing a week before that date. There is a conflict here that success at shoots may result in upward grade movement prior to the target competition with the shooter facing greater competition. Pistol shooters have a system whereby within club competition does not result in a regrade, only results at a 'ratified open shoot. This means they can lift their skill levels specifically. However, they don't go down in grades as easily.

4. Record progress, adjusting mix of programme to suit. always in consultation with the shooters. A simple method can be a graph of scores vs time...one picture IS worth a thousand words.

Looking at both examples we can see some common elements

NOVICES	**ELEMENT**	**ELITE**
No knowledge	Starting point	Good skills
Break a target	Set goals with shooters	Shoot 50 SB tgts
Easy targets	Programme set to skill levels	Practice/comp. mix
Explain,shoot,feedback	Logical sequence	Flexible, peak to tgt

NOVICES	ELEMENT	ELITE
Discussion	Feedback	Diary/Recording
Try different method	Modify programme	Adjust program mix

These elements are the elements of the circular planning process we discussed at the start:

MEASUREMENT/FEEDBACK

Probably the most critical element in achieving success. **YOU** need to know how the shooters are performing. **THEY** need to know also.

Many things affect performance... mood, physical conditions, gun operation, quality of refereeing. setting of targets, nerves...there are a lot of factors to get right to achieve success.

So, records of these things during a training programme can give you and the shooters an idea of where to concentrate your efforts. If gun operation is a problem over time, get it fixed! If shooters have trouble with extreme targets, practice these or shoot at clubs known to set hard targets.

Getting the mood right, overcoming nervousness eventually becomes the biggest challenge for both coach and shooter. You will learn more about this in sports psychology.

REMEMBER ONE GOLDEN RULE: The goals and plans belong to the shooter. The coach is there to facilitate and advise. Always work in consultation with your shooters. Only at novice level will the shooter be almost totally reliant on your guidance.

IN SUMMARY

KNOW WHERE YOU ARE GOING

PLAN YOUR 'JOURNEY'

BE PREPARED FOR DETOURS

VISUAL SKILLS TARGET SHOOTING

We shoot with our eyes. Our eyes tell us colour, size, shape, direction and speed, and when to release the trigger. The ability to maintain efficiency depends on understanding how vision works, especially as vision fatigues or falters. Like all other learned skills, vision can be taught and trained to improve performance, or remediated if the vision is working in a faulty manner. Most mistakes and misses are triggered through faulty visual movements - when visual input is mixed up, the response of the computerised brain is to reject it. This causes breakdown of visual 'centring', position and concentration breakdown - followed with a miss.

Once you understand the basic visual skills required in shooting, as an observer of others performing you will easily identify faulty vision function. Once you are able to make these observations - see it happen with others shooting, understand the visual mistakes and 'why' they miss, and know what is correct - learning will begin.

CLAY TARGET STATE TRAINING SQUAD VISUAL SCREENING 1989

Introduction

Visual function and visual skills assessments have been earned out on a number of clay target shooters in order to assess any visual deficiencies which may be detracting from performance. The results have been tabulated and analysed with averages for the group computed and compared with averages for other test groups. Basic comparisons indicate there is no significant difference between group scores for clay target shooters, Olympic and Australian Institute of Sport hockey players and United States Olympic athletes. Accordingly, each shooter has been rated according to his result within each group test, and the ratings added together to compile a rudimentary order of shooters with regard to their visual skills only.

Based on the relationship between visual function and skills, and shooting visual requirements, an analysis has been prepared of each shooters strengths and weaknesses, and how his shooting performance may be affected.

This analysis is based on visual results only; experience and technique can often compensate for reduced visual skills, and so the assessment only indicates possible effects on performance.

I would be happy to discuss these conclusions with you if you desire.

Recommendations have been made in some cases that vision training may be beneficial in remediating specific visual skills deficiencies. This should only be considered by the coach and shooter where it is considered the deficient visual skill(s) is contributing to reduced shooting performance -that is, the problem areas suggested by this report should match areas noted by coach and shooter.

Vision training can achieve varying degrees of success with each participant. It involves retraining inefficient visual skills, or enhancing below average skills. Success depends on the application of the shooter to his vision training program - results are achieved in months, not weeks, because we are changing learned patterns of visual behaviour which have become (often) quite entrenched, especially in older shooters.

TESTS EMPLOYED

1. Complete optometric examination of eye focus, teaming and health.
2. Contrast sensitivity - sensitivity to detail, this is considered a finer test of visual discrimination abilities - ie - visual sensitivity to detail than reading an eye chart. A high score is ideal.
3. King Devick measures the speed and accuracy of saccadic (jump) eye movements for distance targets. A low score indicates fast eye movements
4. Tachistoscope tests the speed and accuracy in recognising central visual information. A high score indicates more numbers recognised.
5. Peripheral Awareness Test measures response times to information using peripheral vision. A low score is better.

VISUAL SKILLS IMPORTANT FOR TARGET SHOOTING

1. VISUAL ACUITY

Sharpness of sight. Dynamic acuity is more important that static visual acuity, as the target is in motion.

2. PERIPHERAL VISION

Essential. Peripheral vision locates the moving target for the brain to direct central vision and the barrel to 'centre' on the target. The point of the target's emergence is known, but its direction is not, and because of its high speed there is little time to locate the target with central vision and then point the gun. So shooters spot the target on emergence, but its flight path must be followed by the eye and gun which have already been pointed by central vision' (1) as a result of peripheral vision awareness and locating ability.

3. DEPTH PERCEPTION

Judgement of distance (dependent on depth perception [stereopsis]) must be highly developed in the shot gunner. It depends on efficient two-eyed combination.

4. EYE MOTILITY

Research has shown experienced competitors have more efficient eye movements than inexperienced ones. There are different types of eye movements:

(a) Versions - moving both eyes from one side to the other. Faulty movements often are related to head jerking or frequent change in head position. Adequate versions are necessary for balance control and timing of hard right or left targets. Also involved in changing gaze from near to far or far to near.

(b) Saccades - quick movements from one point to another, and used for locating direction, speed and distance.

5. EYE/HAND/BODY CO-ORDINATION

Essentially, head and body must maintain balance while head and eyes maintain alignment on the target. Induced faulty body movements, caused by shifting and changes in body position, must be avoided.

Good eye-hand co-ordination is essential in shotgun shooting because of the need to co-ordinate complex visual and manual activities.

6. VISUALISATION

Visualisation is the technique of mentally picturing the process of shooting - identifying each component, analysing it and mentally rehearsing it, individually and in sequence. Visualisation, or mental rehearsal develops a visual-mental plan of attack, and builds memory.

Practice helps awareness of adequate time to react and improves space judgement, orientation and location so that action - locating, tracking and shooting becomes subconscious and automatic.

7. SPEED OR RECOGNITION TIME

There is a difference between seeing and recognising. Shooting requires the ability to perceive details of a fast moving object, in a very short time, and to initiate action based on visual recognition.

8. SPEED OF FOCUSING/EYE AIMING

Ability to quickly and accurately focus and aim both eyes as a team from far to near and near to far.

Divergence is the relative turning outwards of the eyes from a close target. In shooting it is an up and out movement on a target going away, and is much more difficult to maintain accuracy and withstand fatigue, than moving eye-aiming from far to near. The task of maintaining visual control - concentrating and 'centring' on a target while in a relaxed position is not automatic and therefore difficult. It is easy to ease off visual alignment with the target, thus allowing focusing and centring to the secondary zone of the target. Divergence muscles are affected more by alcohol, drugs and coffee than the other eye muscles.

Research shows at distances over six metres, the eyes tend to under-aim -ie - aim closer than the target. Thus additional effort is needed so as not to look 'short'. It is important not to spend too much time on close visual tasks - eg - mounting a gun - just prior to shooting. The eyes must always be ready and aimed out in the breaking area before calling.

9. GLARE RECOVERY SPEED

Sunglasses should be used to protect against excessive glare prior to competition. Shooting should not be arranged so that the sun will near the line of sight. Glare/dazzle will lead to difficulty changing focus and maintaining target centring.

10. ABILITY TO SEE IN DIM ILLUMINATION

Usually not a significant factor for shotgun shooters. However, very dull illumination will naturally reduce visual cues, leading to reduced accuracy, visual indecision and fatigue.

11. COLOUR PERCEPTION

In a mental game such as shooting, if there is less worry about locating and following the target, the shooter is more relaxed and less stressed. Coloured lenses may be used to enhance target contrast against certain backgrounds. Orange and yellow lenses are considered by some to be superior in visibility against the sky, especially non blue skies. Obviously the colour contrast is greater than white against grey as on a dull day.

Only that amount of tint in shooting glasses necessary to control the light in order to provide comfort should be used, to allow maximum response to the light stimulus entering. At this stage all that can be said about shooting tints is that individual preferences - as yet indefinable - seem to influence why one person feels he shoots better with one colour, while another does not.

12. ABILITY TO WITHSTAND EYE FATIGUE WITHOUT DECREASED PERFORMANCE

Visual skills break down with fatigue or stress even more than physical skills. If eye teaming, eye tracking, visual reaction times or eye-hand coordination are inefficient initially or break down quickly with the stress of shooting, visual information gathering will become inefficient and slower, leading to delayed or inaccurate shooting.

13. COLOUR PERCEPTION

The choice of target colour depends on a number of factors, one of which should be maximum contrast against the background. (The degree of visibility of orange targets is presently under investigation).

However, one in ten men have colour vision deficiencies, and two in one thousand women. Yellow-orange is the only colour seen by all people.

14. EYE DOMINANCE

Two eyed shooting allows more rapid detection of a peripheral target. However, one-eyed shooters are often not at a major disadvantage.

Problems arise when there is a lack of a consistent master eye, so the shooter may become confused about gun alignment on the target and consequently delay his shot, or fire inaccurately. Usually cross-firing is a symptom, not a cause, and is due to faulty eye and therefore gun movement in centring on the target.

15. FIXATION ABILITY

It is important not to allow gaze to become locked onto something like the traphouse, otherwise it takes longer to break gaze to the target when it appears. Staring and concentrating too hard can lead to inaccuracy.

16. VISUAL MEMORY

Memory is important in shooting in recognising the requirements of each shooting position - eg - feet position so that these are automatically covered, freeing attention for the act of shooting.

FURTHER COMMENTS

AGE is a factor in eye-hand co-ordination and visual reaction speed. For each five year age increment between 20 and 40 there is a drop of 5 -10% in each skill area. However, this loss of visual skills is often compensated for by experience and anticipation.

BLINKING we normally blink 15 to 20 times each minute; each blink takes one-fifth of a second to complete; a clay target at 100km per hour travels 5.8 metres in one blink. Western Cartridge Company studied the mechanical delay in shooting, and human recognition and reaction times and found: 0.76 seconds for mechanical firing - flight time 0.3 seconds for shooters recognition and reaction time. Add 0.2 seconds for a blink.

Thus never blink while actively shooting. It must be remembered we blink automatically when we change fixation from near to far, or far to near; if you glance inward, you will also blink.

IMPROVE YOUR SHOOTING WITH POSITIVE SUGGESTION

1. Ensure that you are sitting in a comfortable, relaxed, warm situation.
2. (You can lie on your bed if you chose, but may find yourself falling asleep too soon).
3. Try to make sure you will not be interrupted
4. Begin with a few simple physical relaxing exercises; tense your toes by bending them towards your head, than let them relax, now tense your ankles by stretching out your feet, let them relax. Continue by tensing and then relaxing your calf muscles, thigh muscles, your chest, hands, arms and finally hunch up your shoulders and tense your neck and shoulder muscles and let them relax.
5. Take four very deep leisurely breaths and as you exhale let your body relax more and more. Sinking down deeper and deeper into the chair.
6. Look across the room, choose a spot in front of you and focus your eyes on it. (It can be part of a picture, a mark on the wall - anything will do).
7. Keep looking at your spot and count quietly backwards to yourself - say from 100.
8. As you continue to count you will feel your eyes becoming very tired, you notice things beginning to go out of focus, the eyelids get heavier and heavier and finally you let them close.
9. Stop counting now and focus your attention on your body. Notice, in a calm and relaxed way, what is happening. Mentally check each part of your body from your toes to your head. Allow yourself to relax more and more completely.
10. Each of us experiences hypnosis in our own way. You may feel a great heaviness in your limbs or in your body. You may experience a floating sensation. Your hands may feel very big as if they are floating. You may experience tingling in your fingers.
11. At this stage you are ready to give yourself the positive suggestions which are very important to you to enable you to shot to the very best of your ability.
12. You may recognise that you are perfectly all right shooting in your local club but go to pieces in a competition or away from 'home ground'. In this case you would say something like this, "I can shoot well. It does not matter where I am or who is watching, I will remain

calm, and relaxed and concentrate totally on shooting". You would repeat this several times to yourself and then picture yourself responding positively to your suggestion; totally calm and in control where previously you have performed badly.

It is a good idea to decide where your weaknesses and faults are before starting self-hypnosis because when you have achieved your mentally relaxed state it is difficult to alert you’re sufficiently to think at a conscious level about your performance. In fact it is very easy to fall asleep before you have made the appropriate suggestions.

Whatever your problem may be try to make the suggestion positive, it is far better for instance to say "I will be calm", than to say "I will not get anxious".

PHYSICAL CONDITIONING FOR CLAY TARGET SHOOTING

OBJECTIVES: To have an understanding of the part physical fitness plays in shooting efficiency.

To understand some of the factors influencing physical fitness.

What is Physical Fitness?

Physical fitness can be defined as the ability to carry out daily tasks with vigour and alertness, without undue fatigue and with ample reserve energy to enjoy leisure pursuits and meet unforeseen emergencies. It also includes the ability of the heart, blood vessels, lungs and muscles to function at optimal efficiency. Optimal efficiency implies that the person is in a favourable state of health so that they can enthusiastically pursue participation in daily tasks and recreational activities.

Regular, appropriate physical activity is required to improve and maintain the required level of physical fitness - ie - a physical conditioning program is required.

Minimal fitness and health is not enough for the sportsperson. The clay target shooter must have a level of physical fitness that allows completion of training and competition without undue stress on any body system. This means that the individual has:

1. Muscles developed to handle the weight of the shotgun through the movement patterns required in the different disciplines.
2. Good muscular control.
3. The muscular and cardiorespiratory endurance to fire many rounds under varied conditions.
4. Good reflexes and a well developed sense of equilibrium.

With a high level of physical fitness the shooter will better able to withstand competitive pressure and improve consistency of performance.

The Major Components of Physical Fitness

From a physiological point or view the major components of physical fitness are:

1. Cardiorespiratory endurance.
2. Strength.
3. Muscular endurance
4. Flexibility.
5. Body composition.

Cardio respiratory Endurance

Cardiorespiratory endurance is considered to be the most important component of physical fitness. All other aspects of physical fitness are more effective when they are linked with good levels of cardiorespiratory endurance.

Cardiorespiratory endurance or stamina refers to the ability of the circulatory and respiratory systems to supply oxygen and nutrients to the muscles and to remove wastes during muscle activity. The more efficient the heart and lungs are the greater the capacity to sustain effort. Increased cardiorespiratory endurance means that the heart and lungs can deliver the same amount of oxygen and nutrients with less effort. Its development will not only aid sporting performance but may also help prevent cardiovascular disease.

Strength

Strength is the capacity of a muscle or muscle group to exert a force. It is usually measured by determining the maximum weight (or load) that can be lifted once.

Muscular Endurance

Muscular endurance refers to the ability to repeat a muscular contraction over a prolonged period of time. It is usually measured by counting the number of successive contractions that can be achieved before fatigue prevents contraction - eg - the number of sit-ups that can be performed is a measure of abdominal muscle endurance.

Flexibility

Flexibility or suppleness refers to the range of motion through which a limb can move about a joint. Increased flexibility usually means increased efficiency of movement. When range of motion is decreased, muscles shorten, after physical activity these inflexible muscles are more likely to experience muscle soreness & muscle injury.

Body Composition

Body composition refers to the relative amounts of fat and lean tissue (muscle, bone) that makes up the body. Research suggests that physical inactivity is the major cause of excess weight in the form of fat, diet also plays a role. Obesity increases the risk of medical problems such as diabetes, heart disease and high blood pressure. Excess fat may also interfere with smooth movement through the desired range of motion and decrease body efficiency.

There are, of course, other components of physical fitness: Agility, Speed, Skill, Co-ordination etc. These are not considered here.

Factors Affecting Physical Fitness

These fall into two general categories, heredity and lifestyle factors.

Heredity

The genetic makeup of the individual largely determines the growth and development of the individual AND the trainability of the sportsperson. To a large extent maximum capacities for the major physical fitness components are limited by heredity. Many people do not reach their potential due to lifestyle factors. Despite these genetic limits improvement in actual physical fitness can be brought about by appropriate training.

Lifestyle Factors

Physical activity is the best way of improving physical fitness and sporting performance and is considered in detail later. Naturally a trained person will be Titter' than an untrained person of similar genetic makeup and lifestyle. Other important lifestyle factors include diet, rest and drug use.

Diet

Diet is closely related to a person's ability to maintain fitness. It determines whether the body has sufficient energy input (food) to permit daily activity. If energy input is less than energy expenditure eventually performance will decrease and there will be a loss of weight. When energy input is greater than energy expenditure then the excess energy is stored as subcutaneous fat. Accompanying correct energy content of the food there must be appropriate amounts of carbohydrate, protein, fat, minerals, vitamins and water. The general advice is to follow a balanced, nutritious diet which meets the energy requirements of the individual.

Rest

Rest is required by the body so that it can recover and repair 'damage' caused by the stresses of physical activity. When there is insufficient rest the body cannot adapt and problems such as stiffness, soreness, decreased alertness and increased susceptibility to infection occur, thus sporting performance is adversely affected. Illnesses have a similar affect on the body, this means that more rest is required when physical activity is resumed.

Drugs

Alcohol, caffeine and tobacco are three commonly used legal 'drugs' that adversely affect performance and physical fitness.

Alcohol's primary effect is on the brain. In small quantities it can be a relaxant but at higher doses its effects are accompanied by impaired skill, co-ordination, senses and thinking, all of which impair performance. Its consumption is deemed as doping in some sports - eg - fencing, modem pentathlon. In clay target shooting pre-competition, consumption of alcohol is very unwise. Acute intakes of large amounts of alcohol are physically and mentally deleterious *irrespective* of fitness and required 24 to 48 hours for recovery. Prolonged alcohol excess will result in major deterioration of health with disease effects on the liver, heart, brain and nervous system.

Caffeine is a naturally occurring stimulant found in tea, coffee, chocolate and cola drinks. Initially its consumption increases mental alertness ***but*** reliability and accuracy decrease. The stimulating effects of caffeine are quickly replaced by mild fatigue and unsteadiness, thus it is advised that the shooter refrain from consuming caffeine before and during the shooting session.

The link between chronic smoking and disease of the respiratory and cardiovascular systems is well publicised. The immediate effects of smoking are less widely known. After smoking half a cigarette, airways resistance increases dramatically, this means that less air can be exhaled/inhaled in one breath. Heart rate and blood pressure rise, arteries decrease in size and less blood gets to the muscles. The carbon monoxide in the cigarette smoke reduces the oxygen carrying capacity of the blood.

In-addition to the above social drugs there are pharmacological substances. There are sportspersons who are tempted to use such substances as ergogenic aids. An ergogenic aid is defined as any agent taken or used in the belief that it will improve performance, this includes nutritional, physical, psychological and pharmacological (drug) methods. As with the others pharmacological agents are divided into the legal and illegal.

Doping refers to the use of drugs illegal from the sporting perspective. Doping is defined as the administration or use of substances in any form alien to the body or of physiological substances in abnormal amounts and by abnormal methods by healthy persons with the exclusive aim of attaining an artificial increase in performance in competition. All coaches and sportspersons MUST understand that doping in unethical and illegal in sport and should NEVER be practised or permitted. Apart from this such drug use is physically dangerous.

Some sportspersons have legitimate health problems which required medications for control of the problem and improved quality of life. In such cases medications will be prescribed by a medical practitioner. It is then the individual and their coach's responsibility to ensure that:

1. The medication is legal for the sport and level of competition and;
2. They become informed on the possible side effects of the medication(s), especially those which may alter performance.

Others may self medicate for minor problems such as colds, hay fever and headache. These sportspersons have the same responsibilities as those who are under medical care. Most of the over the counter medications for such problems are not conducive to good shooting.

The Principles of Training

There are a number of principles of training that should be followed regardless of the sport or activity. They are:

Specificity

The activity should meet the specific needs of the sport and the individual participating in the activity.

Overload

For improvement to occur due to training the load on the body must be greater than is normally encountered by the individual in every day life. A gradual progression in overload is required for continued improvement with minimum risk of injury.

General Training

The first step in the development of a conditioning program for any sport is to determine the physical fitness requirements of the sport. The second step is to determine the physical fitness level of the individual participant. This information allows the coach to prescribe training that targets the requirements of the sport and the needs of the individual.

There are two components of training for physical conditioning:

1. Training for improvement of general fitness for health and well-being.
2. Specific training to meet the specialised demands of the sport.

It is important for the coach and athlete to realise that the movement patterns in the sport should be duplicated as closely as possible. This is particularly important when the aim is to improve strength by resistance or weight training.

Cardiorespiratory Endurance

Continuous activity over 20 to 30 minutes or more is required for improving the function of the cardiorespiratory system. Walking and running are the easiest forms of exercise. The aim of the activity is to raise heart rate to 120 beats per minute or more but maintain a comfortable pace (ie - above resting but not exhaustive) - use the talk test.

Strength

There are two types of muscle contractions:

1. Isotonic - where muscle contracting results in movement and
2. Isometric - where the muscles exert a force against and immoveable resistance.

For improvement of strength resistance exercises involving movement tend to produce the best results. Such exercises involve lifting weights either the persons own body weight or using free weights and weight lifting machines, moderately heavy weights are used with the exercise being repeated 6 to 10 times.

Isometric exercises have an element of danger associated with them and should be used with caution. Static muscle contraction in these exercises causes a sudden large rise in blood pressure which may be dangerous in susceptible persons. Also isometric exercises will increase strength ONLY at the point in the range of motion use in the exercise and not at other joint angles thus the position chosen must be exactly that used in the sport if useful gains are to occur.

Muscular Endurance

For improvement of muscular endurance the same isotonic exercise used to develop strength can be used but lighter weights are used and the number of repetitions of the exercise increased to 30 - 45.

Flexibility

Stretching exercises before training and competition helps to prepare your body for the coming activity. It is wise to stretch those muscles that are involved in the activity plus any that are under increased stress because of position - eg - back muscles. Stretching should be done slowly to a position of slight discomfort and should be held for at least 10 seconds. Bouncing movements whilst stretching should be avoided as they increase the likelihood of injury. Repeating your stretches after activity will help to minimise stiffness and muscle soreness.

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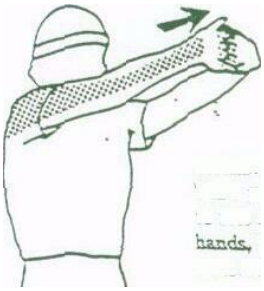
Rushall B S, and Pyke F S, Training for Sports and Fitness, Macmillan Publishing Company

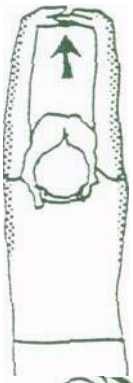
Egger G and Champion N, The Fitness Leaders Handbook, Kangaroo Press Egger G and Champion N, The Fitness Leaders Exercise Bible, Kangaroo Press Anderson B, Stretchina. Shelter Publications

STRETCHES BACK. SHOULDERS AND ARMS

Work a little on it every day and gee a good screech. After a while you will be able to do this stretch without help. It reduces tension and increases flexibility. It also acts as an upper body revitalizer when you are tired.

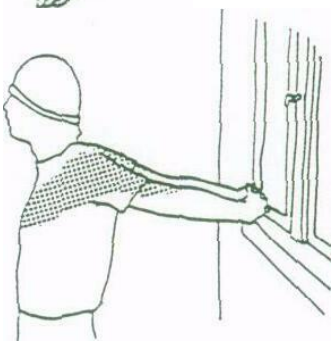


Interlace your fingers out in front of you at shoulder height. Turn your palms outward as you extend your arms forward to feel a stretch in your shoulders, middle of upper back, arms, hands, fingers, and wrists. Hold an easy stretch for 15 seconds. then relax and repeat.



Interlace your fingers above your head. Now, with your palms facing upward, push your arms slightly back and up. Feel the stretch in arms. shoulders, and upper back. Hold stretch for 15 seconds. Do not hold your breath. This stretch is good to do anywhere, anytime. Excellent for slumping shoulders.

To stretch the side of your neck and top of shoulder, lean your head sideways toward your left shoulder as your left hand pulls your right arm down and across, behind your back. Hold an easy stretch for 10 seconds. Do both sides. This stretch can be done sitting on the floor, in a chair, or while standing.



To further stretch your chest and shoulders, bring your arms up behind you. Keeping your arms and back straight, without tilting forward. Rest your hands on something for support. As you take a few steps away from the object and straighten your arms you will increase the stretch. Do not overstretch. This is great for rounded shoulders and gives an immediate feeling of energy.

It is better to under stretch than to overstretch. Always be at a point where you can stretch further, and never at a point where you have gone as far as you can go.

THE NATIONAL FIREARMS SAFETY CODE

1. TREAT EVERY FIREARM AS IF IT IS LOADED.

2. YOUR FIREARM IS YOUR REPONSIBILITY.

3. ALWAYS ENSURE YOUR FIRING ZONE IS CLEAR AND IDENTIFY YOUR TARGET BEYOND ALL DOUBT.

4. NEVER POINT A FIREARM AT OR NEAR ANOTHER PERSON.

5. NEVER LOAD A FIREARM UNTIL YOU ARE READY TO SHOOT.

6. KEEP YOUR FINGER OFF THE TRIGGER UNTIL YOU ARE READY TO SHOOT.

7. WHEN YOU HAVE FINISHED SHOOTING REMOVE THE MAGAZINE (IF FITTED) UNLOAD NAND THEN CHECK THAT THE CHAMBER IS EMPTY.

8. MAKE SURE THAT ALL FIREARMS ARE TRANSPORTED SECURELY TO PREVENT MISUSE OR THEFT.

9. NEVER ALLOW UNAUTHORISED ACCESS TO YOUR FIREARM(S) OR AMMUNITION.

10. DO NOT CLIMB FENCES OR OBSTACLES WITH LOADED FIREARMS.

11. ENCOURAGE SAFE AND RESPONSIBLE HANDLING OF FIREARMS IN THE FIELD, ON THE RANGE, AND WITHIN THE COMMUNITY

12. NEVER MIX SHOOTING WITH ALCOHOL OR DRUGS.

13. UNDERSTAND THE OPERATION OF YOUR FIREARM, KEEP IT IN GOOD REPAIR, AND ALWAYS USE THE CORRECT AMMUNITION.

14. NEVER STORE FOREARMS AND AMMUNITION TOGETHER. ENSURE THEY ARE SAFETY LOCKED AWAY WHEN NOT IN USE.

15. BE FAMILIAR WITH THE LEGAL REQUIREMENTS FOR SAFE STORAGE, FIREARMS OWNERSHIP, POSSESSION, AND USE IN YOUR STATE OR TERRITORY, OR IN THE STE OR TERRITORY YOU ARE VISITING.

16. DISPOSE OF UNWANTED FIREARMS LAWFULLY. SURRENDER THEM TO THE POLICE OR SELL THEM TO OR THROUGH A LICENSED DEALER.

OBSERVE THE CODE - INSIST OTHERS DO THE SAME
LEARN
PRACTICE
TEACH AND PROMOTE
THE NATIONAL FIREARMS SAFETY CODE.

The 10 Basic Principles of Shooting
- The 10 F's

1. **FEET** positioning

2. **FORWARD LEAN** transference of weight to the front leg

3. **FIREARM FIT** gun mount, fit to face, free and easy, no force

4. **FRONT OF TRAP** gun hold position, point of rule of five, gun hold Position

5. **FOCUS OF EYES** out past trap

6. **FINGER ON TRIGGER** firm pressure, feeling first joint of index finger

7. **FORGET OUTSIDE INFLEUNCES** your call for the target should be a flowing crisp call (due to the phono-pulls) NOT faint, feeble or faltering. Be flexible, relaxed but alert

8. **FIRE AT TARGET** Focus on target, not foresight

9. **FOLLOW THROUGH** Go to next station for your first target of the rest (focus on one target at a time)

10. FEED BACK self assessment

The Use of a Video Camera in Novice Coaching

Have you turned up at a coaching session and someone has produced a video camera to assist in coaching? The owner of the camera "watches" some of the novice shooters through the camera and then takes it all back into the clubhouse to play to the crowd. *If* the camera can be set-up & plugged into the TV a review could happen like this:

The "stars" of the show can see that their shirts needed tucking in or that their shoelace needed tying but they have trouble getting good information from the video. Was the camera "bouncing about" too much, focussing on the target rather than the shooter or was it that the operator was concentrating on one or two specific shooters only? Within five minutes of so the "stars" have lost interest for any number of reasons and are looking for another squad to go out & have another shot!

The loss of interest and the retreat could have been caused by:

- Boredom
- Embarrassment; or
- Peer pressure as the pupils were "copping heaps" from the audience watching the replay.

For whatever reason the opportunity for the coach and the pupil is lost, so what can we do about this??

When a coach is planning to hold a coaching day for either a group or in a one on one, and it is intended to utilise a video camera to assist, then the following guidelines may be of assistance.

Preparation

- If possible the coach should not operate the camera, as his/her time will be better spent supporting and guiding the pupils.
- The coach should ensure the camera operator is fully conversant with the operations of the camera, and that does not mean learning while videoing the first pupil.
- A good camera operator will enhance the end result providing they know what to look for. To this end the coach should ensure the camera operator is aware of the coach's requirements. This may require the coach to "script" the operator (eg: I want the pupil to see firstly how they stand on each lane then secondly whether they lift their heads while shooting!)
- The use of a tripod or "brace" is encouraged to reduce unwanted camera jitters.
- Make sure the camera arrives with fully charged batteries and the relevant leads for replay and review operations.
- Have a plan; if time permits start the video process with footage of the coach or a respected shooter, actually shooting on the day "as per the coach's manual" if you like include some specific faults. The coach can use this footage in an initial review process to highlight the benefits of the use of the video and introduce the pupils to the review & comment process.

Location

- The coach should ensure the camera and its operator is located in a position of safety where they will be able to capture the required shots. (eg: for right hand shooters as above, the camera should be safely outside lane 5 about a metre in front of the shooters (and similarly outside lane 1 for lefthanders.)

Capturing the shooting

Following on from the coaches requirements above:

- I would expect to see a full-length shot of the pupil to start, zooming onto the feet on the shooting pad, and then rising into an upper body shot to capture any movement of the head on the gun as it is fired.
- When shooting the video fill the viewfinder as much as possible with each pupil– there is no point looking for head movement on the gun or a pitch related "muzzle flip" problem when the "star" is only a blip in the middle of the screen.

- To identify & solve a particular problem ensure the operator captures the event in sufficient detail for the coach to be able to use the footage to advantage without having to "visualise" the event on the TV during review.
- When working with a squad of shooters, consider only capturing each shooter as they shoot from a particular lane. Ensure every pupil has an equal opportunity to be "captured" on film. This will not only reduce excessive camera movement but it will also reduce repetition and the period of time taken to review the squad's footage.
- To be successful with a group it may require the use of more than one camera or shooting smaller "five target events" to keep the interest up and the squads moving. This is especially important if you are coaching novice junior shooters.
- If you are coaching "one on one" it may be the pupil will request to keep the recordings from session to session to rate their improvement in style or the mastering of a problem, so ensure you have sufficient video tapes. The coach may require the pupil store and return their own tape each time they come to the next coaching session.

Review

It is very important to control the review process as individuals may become quite embarrassed having an audience watch them miss or do silly things:

- Attempt to limit the reviewing audience to the squad of shooters or the individual (if one on one) plus the coach and any assistants.
- Attempt to rotate the pupils from the shooting lanes to the TV as soon as possible after the videoed event while the round is fresh in their minds.
- Allow the pupil to firstly comment on their own technique then have others in the squad comment on each others style before the coach offers assistance.
- The coach should utilise this situation as "experience based learning" for the whole squad as well as reviewing & discussing specific techniques, difficulties, or gun fit problems with the individual.
- Remember to respect the feelings of the pupils, be supportive, guide and reassure as a rough handed report on their style/capability may well loose them from the sport.
- If you are able to offer repeat sessions on the day then concentrate on the specific concern until it is mastered, do not jump around each time picking up other variations as this will confuse the pupil and devalue the result.

With experience it will be seen that short punchy review sessions will benefit each pupil the most. Their ability to concentrate will not be tested and the message *will* sink in.

Conclusions

A coach should always reflect on the positive outcome of a video session, as the camera does not lie you will see "we are not all perfect" reaffirm that fact and the benefits of video footage being such a strong reinforcement - "a picture is worth a thousand words."

Colin Witt
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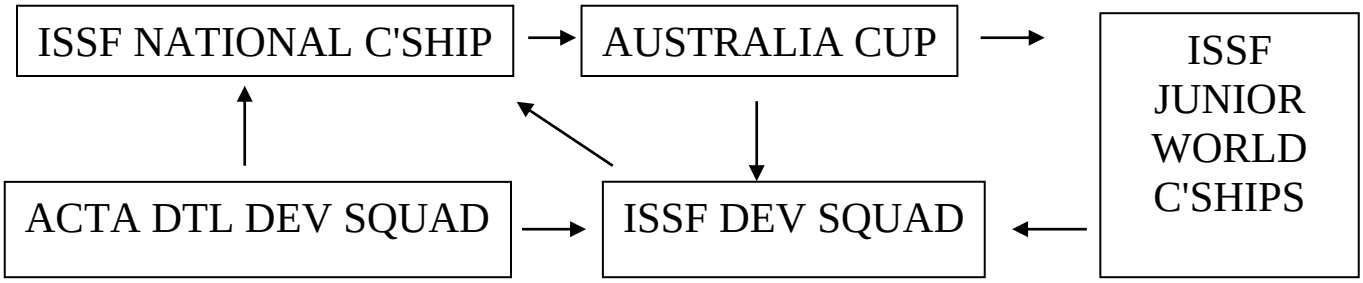
ISSF JUNIOR ATHLETE PATHWAY



The ISSF rules state that an athlete may compete as a junior until his / her 21st year.

The World Championship is the premier event on the ISSF calendar.

To qualify for the Australian Junior ISSF Team, an athlete must compete at the ISSF National Championships; win selection points then compete at the Australia Cup. The top 3 athletes in each discipline who have achieved a travel score will be eligible to compete at the World Championships.

To qualify for the AISL ISSF Junior Development Squad an athlete may gain entry via the ACTA Junior DTL Squad, the World Championship team, be selected from the Nationals / Aus Cup series or by invitation of the AISL High Performance Committee.

NOTES