

## What is the purpose of the "Ninety Plus" Training Course?

This training course was originally developed to test the capabilities of the Instructional Mode and specifically whether the Exercise routines could be cascaded into a series of learning exercises (25 targets to an exercise) that would take a new shooter from very limited shotgun capabilities to a shooter capable of breaking 90 plus targets out of every 100 (16 yard targets).

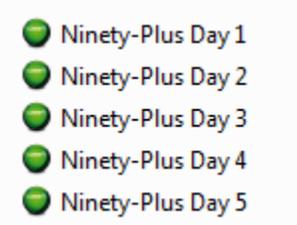
Because of our knowledge of shotgun patterns learned from "Sporting Shotgun Performance," a book researched, developed, and written by Dr. A. C. Jones of the UK, our goal was to teach shooters to break targets before the target was 33 yards from the muzzle of their gun, use a full choke, use the heaviest load the ATA will allow (1-1/8 oz), and then shoot number 8's or 8.5 (8.5's preferred - 80 more pellets in the load).

Other techniques that would be employed would be the use of slow-motion during indoor training sessions, the implementation of a time-line on the wall, and the use of a progressive learning method (the cascading of exercises as described above).

The course is a very aggressive plan and is to be completed during a 5 week time period. Every week will consist of 1,000 indoor targets and 100 outdoor targets. Forty (40) twenty-five target exercises will be employed every week on just one station. Our suggested order of implementation is as follows:

Week 1: Station 2  
Week 2: Station 4  
Week 3: Station 3  
Week 4: Station 1  
Week 5: Station 5

When your Training Software is loaded, the Exercise folder will be loaded with five (5) folders named as follows:



- Ninety-Plus Day 1
- Ninety-Plus Day 2
- Ninety-Plus Day 3
- Ninety-Plus Day 4
- Ninety-Plus Day 5

On Day 1 of your first week, you will load the first folder shown above. This will bring in eight (8) twenty-five target exercises.

**Note 1:** To make sure your learning is the most effective, you should plan your schedule to make sure you will be able to complete the five (5) days of shooting on consecutive days (this is important to the subconscious learning process - repetition).

To make sure you are concentrating on shooting and not on your computer, you will select a DryFire feature that will automatically advance you to the next exercise every time you complete a 25 target sequence. Therefore, during your entire 200 target practice session, your only computer intervention will be to click the "Start" button to begin the 25 target exercise and then click the "Print and Save" button at the end of the exercise.

Now, the work begins. Your goal is to shoot the 200 pre-planned targets as accurately as possible while always breaking the target near the time-line on the wall. Your first Exercise will be done at 50% of normal speed with only two target angles being generated (whether you get a hard left or a hard right will be completely random). When the 25 target exercise is complete, the system will announce your score and take you to a print and save control panel. You should select "Print & Save". Your ink jet printer will print one page of data related to your exercise and an electronic copy of the data will be saved in the "Print Out" folder. We highly suggest your printed copy be placed in your log-book and the electronic copy will remain in the system. Later, if you need to print a copy of this exercise, you will be able to locate it in the "Print Out" folder and print another copy. Or, your remote coach may want a copy of your exercise. In which case, you can e-mail a copy of the data to him or her. The coach will then be able to print a copy of your data by dropping it into his or her "Print Out" folder and then printing it. This allows your coach to review your progress even though he or she is not with you at the time of the practice.

**Note 2:** To allow the coach to see you in action, you will want to come up with a plan to video yourself shooting your exercises and send it to him or her for viewing. This completes the loop of seeing and having concrete data regarding your accomplishments.

**Note 3:** You are quickly going to learn that 200 targets a day can be physically difficult. Therefore, before you begin, you might want to consider shooting 100 targets a day and working up to 200 targets a day before you begin the course. So, be smart and get yourself in shape before you begin. Serious football players don't show up for summer camp out of shape and expect light workouts. They get in shape before they arrive at summer camp and then put in the required work to achieve their goals.

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Below, you will find a copy of each days exercises so you will know ahead of time the specific target speeds, the target angles, and whether the variable release delay feature is going to be used. Two methods of developing the target angles are used. One we call "Pick 1 to 10" angles and the other is called "Wedge of the Pie."

If, as in the first exercise listed, it says Pick 2, then the two specific angles that will be generated will be shown in the next column. If, as in the seventh exercise it says Wedge, then the next column will define the width of the wedge and the center angle of the wedge.

**Note 4:** All angles are defined as though you are standing on top of the traphouse looking down between your legs. Straight ahead is zero (0) degrees, all angles to the left are noted as minus (-) angles, and all targets to the right are noted as positive (+) angles.

Therefore, Exercise 8 below is at 70% of speed, with a maximum release delay of 1/2 second, the targets are being generated by the wedge and the wedge is defined as centered on zero (0) degrees and having a spread of 17.14 degrees to the left and right of center. Therefore, expect every possible angle that is legal from this station at a speed of 70%.

**Any New Station Day 1**

Exercise #	Target Speed	Release Delay	Pick or Wedge	Target Angles or Wedge Definition
1	0.5		Pick 2	-18, +18
2	0.5	1.0	Pick 2	-18, +18
3	0.6		Pick 3	-18, 0, +18
4	0.6	1.0	Pick 3	-18, 0, +18
5	0.7		Pick 5	-18, - 8, 0, +8, +18
6	0.7	0.5	Pick 5	-18, - 8, 0, +8, +18
7	0.7		Wedge	Center 0, Angle 17.14, Height 9.0
8	0.7	0.5	Wedge	Center 0, Angle 17.14, Height 9.0

Take note that by the end of the first day you have worked your way up to 70% of speed and all legal angles for the station you are training on.

## Question: Why is shot timing important?

After studying the research done by Dr. A. C. Jones and presented in "Sporting Shotgun Performance," it became apparent that a 12 gauge shotgun does not have the range (ability to break 100% of the targets when pointed accurately in the right direction) many shooters think it does. In fact, unless the shot cloud overtakes the target by the time the shot cloud reaches 22 inches in diameter, which for most full chokes takes place at approximately 33 yards, it is not possible to break 100% of the targets.

The concept and implementation of a **time-line** was developed to allow the indirect teaching of shot timing during the slow-motion process.

**Note 5:** Anytime I refer to the shot cloud diameter, I am referring to the circular area in which 75% of all the pellets in the load are contained.

Further studies revealed that the 100% zone, for a full choke, begins at 27 yards and continues to 33 yards. Beyond 33 yards, it is not possible to break 100% of the targets, even if a computerized shooting machine with perfect accuracy was pointing the shotgun.

Therefore, it is very important to learn to shoot the target at the correct distance from the muzzle of the gun. Because this was so important, we began to look for a way of being able to visually see distance on the practice wall. And the answer I came up with revolves around the following fact.

**Fact:** Every ATA target launched from the same trap machine, in calm air, will be at the same height in the sky at the same time down the trajectory.

**Example:** If you compare a hard left on Station 1, with a hard right on Station 5, or a straight-away from Station 3, at 0.8 second down the trajectory, the clay will be at exactly the same height in the sky.

Therefore, indoors with DryFire launching the targets, it is possible to locate a blue piece of masking tape across the canvas (it will be almost parallel to the floor) and make the statement that when any target arrives at the bottom edge of the blue tape, the target is 0.8 seconds down the trajectory. This will be true for any target thrown from any station.

To accurately place this tape on the canvas, I will use the Stop Motion logic to locate seven points. These points are listed below.

Station 1 hard left  
Station 2 hard left  
Station 3 hard left  
Station 3 straight-away  
Station 3 hard right  
Station 4 hard right  
Station 5 hard right

A Training video, which will take you step by step through the process of locating these points, will be available on the DryFire USA web site not later than Oct 1, 2012.

**Statement:** When you begin your slow-motion training, keep in mind the reason you are working in slow-motion is to allow your conscious mind enough time to accurately control your gun movement to the target, see the relationship between your bead and the target, and pull the trigger so the target is broken near the bottom edge of the blue tape. Remember, gun control, pointing accuracy, and timing are the three (3) things you are teaching your sub-conscious mind to do..

Now, let's talk a little about the conscious and sub-conscious minds. Almost anyone who has spent any amount of time around a gun club will have heard the old story about how all you need to do is keep your eye on the target. This statement inferring that your sub-conscious mind already knows what the target bead relationship should be and that your sub-conscious mind already contains all the muscle memory information needed to move your gun smoothly to the target. If you believe this is good advice for new shooters, then I have a question for you.

### **Have you ever learned a subject while you were asleep?**

I have asked this question over and over again, and have never found anyone who has. But, you might be the first and if you are, please call and tell me your story. When I ask this question I go on to specifically ask if while they were sleeping they learned a subject like a language, or perhaps a specific math function, or how about a sport like tennis. Since no one I have spoken to has learned anything while asleep, there is about a 100% change that you haven't either. Why would you think a new shooter could function by just looking at the target?

The truth is, everything you know and you can explain with your conscious mind or any sub-conscious reaction you exhibit has been learned through your conscious mind. Therefore, learning your shotgun skills in slow-motion is a great way of slowing down the targets to a speed at which your conscious mind has enough time to control the muscles required to get your gun to the right place at

the right time and when it sees the perfect target/bead relationship, pulls the trigger.

As you repeat the process time after time, a "myelin" material is wrapped around the neurons in your brain that are used to perform the task. The thicker the layer of myelin becomes, the faster control signals can be transmitted through these neurons and the faster and more controlled you become. Signals that travel down fully coated neurons can travel from 100 to 300 times faster. Is there any wonder why the athletes who practice a lot can compete at higher levels.

If you are interested in this process and want to know more about the training of the sub-conscious mind, I would suggest you read a book titled "Talent Code" written by Daniel Cole. I found it to be a very encouraging book, both for shooters and coaches, because you will come to the understanding that you have just as good a chance of being a "top shooter" as anyone who has already achieved that classification. It can be done, as long as your interest level will sustain you through the practice sessions it takes to achieve your goals.

### **Does slow-motion practice make it hard to transition from conscious learning to sub-conscious reaction?"**

The answer is no. In your progressive learning sessions, the speed of the target is constantly being increased. By the time you get to 90% of normal speed the targets are moving too fast for your conscious mind to be able to control your actions and your sub-conscious mind will take over. Therefore, the transition from conscious to sub-conscious is very seamless. It just happens. Your true skill level will become apparent when you are just reacting with your sub-conscious mind. If your skill level isn't at the level you have set your goal at, then you will need to develop a new training plan that will address your weaknesses. Don't be surprised if that takes you right back to some slow-motion training.

Just to make sure I'm not misquoted, let me say I believe that everything we know, whether it is a conscious fact or a sub-conscious reaction has been learned through our conscious mind. And therefore, there is no contradiction in believing that you can learn your shotgunning skills in slow-motion (using your conscious mind) and then compete outdoors using your sub-conscious mind (reacting to the target).

**Moving On:** Day 2 begins with you returning to 50% of speed for one exercise. Then you quickly move on to 60% and 7 angles. By the third exercise of the day you are back to 70% and three target angles. By the end of the day you have moved on to 80% and 7 angles.

**Any New Station Day 2**

Exercise #	Target Speed	Release Delay	Pick or Wedge	Target Angles or Wedge Definition
1	0.5		Pick 5	-18, - 8, 0, +8, +18
2	0.6		Pick 7	-18, -12, - 6, 0, +6, +12, +18
3	0.7		Pick 3	-18, 0, +18
4	0.7		Pick 5	-18, - 8, 0, +8, +18
5	0.7		Pick 7	-18, -12, - 6, 0, +6, +12, +18
6	0.8		Pick 3	-18, 0, +18
7	0.8		Pick 5	-18, - 8, 0, +8, +18
8	0.8		Pick 7	-18, -12, - 6, 0, +6, +12, +18

**Day 3:** We begin the day by reviewing 60%, 70%, and then move on to 80%, and finally 90%. Notice in Exercise 4 there is a "Release Delay" of up to one second added to the Pick 5 angles.

**Any New Station Day 3**

Exercise #	Target Speed	Release Delay	Pick or Wedge	Target Angles or Wedge Definition
1	0.6		Pick 5	-18, - 8, 0, +8, +18
2	0.7		Pick 7	-18, -12, - 6, 0, +6, +12, +18
3	0.8		Pick 3	-18, 0, +18
4	0.8	1.0	Pick 5	-18, - 8, 0, +8, +18
5	0.8		Pick 7	-18, -12, - 6, 0, +6, +12, +18
6	0.9		Pick 3	-18, 0, +18
7	0.9		Pick 5	-18, - 8, 0, +8, +18
8	0.9		Pick 7	-18, -12, - 6, 0, +6, +12, +18

**Day 4:** We begin the day by reviewing 70%, 80%, and then move on to 90%, and finally 100%. Notice in Exercise 4 there is a "Release Delay" of up to one second added to the Pick 5 angles.

**Any New Station Day 4**

Exercise #	Target Speed	Release Delay	Pick or Wedge	Target Angles or Wedge Definition
1	0.7		Pick 5	-18, - 8, 0, + 8, +18
2	0.8		Pick 7	-18, -12, - 6, 0, + 6, +12, +18
3	0.9		Pick 3	-18, 0, +18
4	0.9	1.0	Pick 5	-18, - 8, 0, + 8, +18
5	0.9		Pick 7	-18, -12, - 6, 0, + 6, +12, +18
6	1.0		Pick 3	-18, 0, +18
7	1.0		Pick 5	-18, - 8, 0, + 8, +18
8	1.0		Pick 7	-18, -12, - 6, 0, + 6, +12, +18

**Day 5:** Notice that all targets on Day 5 are at 100% speed. We begin with a "Wedge Left." If you look closer, the wedge is centered at -12 degrees and will vary 5 degrees either side of -12. Therefore, the angles will range from -17 to -7 degrees. The next exercise is a "Wedge Right." Resulting target angles will be anything between +7 and +17 degrees. And finally the real thing, six exercises of a "Wedge All." Target angles will vary from -17.14 degrees to +17.14 degrees.

**Any New Station Day 5**

Exercise #	Target Speed	Release Delay	Pick or Wedge	Target Angles or Wedge Definition
1	1.0		Wedge Left	Center -12, Angle 5.00, Height 9.0
2	1.0		Wedge Right	Center +12, Angle 5.00, Height 9.0
3	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0
4	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0
5	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0
6	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0
7	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0
8	1.0		Wedge All	Center 0, Angle 17.14, Height 9.0

**Day 6:** Finally the day has arrived to go outdoors to shoot 100 targets. I know your first thought would be to go out and shoot four (4) rounds. That is exactly the wrong thing to do. Go to Station 2 and shoot 100 targets. Make sure the oscillator is turned on so you get the complete range of targets.

Have a friend keep score and on any target you miss, have your friend record the approximate target angle. An easy way to do this is for a friend to stand on the 27 yard line of Station 3 and record to the best of his or her ability the angles seen. This will give you the same perspective as if you were standing on top of the traphouse looking down through your legs. By recording it in this manor, it will be easy for you to determine what target angle is your biggest weakness and then develop a training plan that will help you solve your problem.

**Major Caution:** Your gun must shoot outdoors like you told DryFire your gun shoots indoors. Because, after shooting 1,000 targets in a five (5) day period, you now will be trained to shoot the gun you have electronically described to DryFire in the Shooters Information Table.

**The Final Four (4) weeks:** You have now been taken through the first Station in a one (1) week period and you are now ready to move on to the next four (4) weeks. So, for week two, place yourself on Station 4 (the compliment of Station 2) and repeat the process. On the sixth day, make sure you go out to shoot 100 targets at your favorite gun club and remember to shoot Station 4 targets and have a friend record the details of any lost target.

The third week should find you working exclusively on Station 3. Week four should find you working on Station 1, while week five will find you working on Station 5.

**A little encouragement:** Here are some facts I learned and you can check out on ([www.shotgun-insight.com](http://www.shotgun-insight.com)). Use the "Pattern Optimiser."

If you shoot at 33 yards, using a full choke, 1-1/8 oz of #8 pellets, and your pointing Accuracy is fourteen (14) inches or better, your score will be 97.7%.

If you shoot at 33 yards, using a full choke, 1-1/8 oz of #8 pellets, and your pointing Accuracy is ten (10) inches or better, your score will be 99.6%.

If you shoot at 33 yards, using a full choke, 1-1/8 oz of #8 pellets, and your pointing Accuracy is six (6) inches or better, your score will be 100%.

## The End