

2010 Rolling Ranking Specifics

2010 Rolling Ranking Events

Events added to the 2010 Rolling Ranking will only include domestic USAT Events and US Nationals listed below. A 12-month sliding event calendar, one-year prior to event date, will be used to tabulate the Rolling Ranking. International events listed in the 2009 Rolling Ranking will remain on the calendar until phased out by the 12-month sliding event calendar. The Rolling Ranking will be utilized to select archers for international competitions in 2010. For a list of international competitions please reference Jan. 19th *Sustaining Excellence* Blog on the USA Archery Website. In 2010 archers will need to have competed in a minimum of three events to be eligible for international competitions through the Rolling Ranking.

2010 Rolling Ranking Event and Schedule

a. Arizona Cup	April 8 - 11
b. Texas Shoot-Out	April 23 – 25
c. Gold Cup	May 28 – 30
d. Nor' Easter	July 2 – 4
e. US Nationals	July 21 - 25
f. SD Cup	August 13 -15
g. So Cal Showdown	October 8 – 10
h. Gator Cup	October 29 – 31

Adaptations Necessary to Combine Match-Play and Set-Play Systems

Why are changes necessary to the Rolling Ranking System? For the 2010 Season the international governing body FITA, adopted a new style of format for Olympic Round Competition. The Set-Play System has variable amounts of arrows that can be shot during an Olympic Round Match. The change in competition format combined with an unknown numbers of arrows shot during a match led us to use a common denominator, the Single Arrow Average.

To combine the 2009 Match-Play and 2010 Set-Play System, USA Archery will be calculating Single Arrow Averages per event to determine an archer's 2010 Rolling Ranking. In the 2010 Rolling Ranking System, an archer's Single Arrow Average (SAA) per event will be found by totaling points scored in Olympic Round Matches divided by the total number of arrows shot during Olympic Round Matches. Only arrows shot during matches will count towards the Single Arrow Average. Shoot-off arrows will not be included in calculations.

2009 Rolling Ranking Average Calculations - 12-Arrow Match-Play

The calculations below are for the previous Rolling Ranking Average (12-Arrow Match Play):

$$2009 \text{ RR Average} = \frac{(12 \text{ AA}_{e1} \times \text{TM}_{e1}) + (12 \text{ AA}_{e2} \times \text{TM}_{e2}) + (12 \text{ AA}_{e3} \times \text{TM}_{e3})}{(\text{TM}_{e1} + \text{TM}_{e2} + \text{TM}_{e3})}$$

12 AA_e = 12 Arrow Average for the event

TM_e = Total Matches for the event

2010 Rolling Ranking Specifics cont.

2010 Rolling Ranking Specific Calculations

The Rolling Ranking Average will be calculated utilizing the mathematical equations as in the previous Rolling Ranking Systems. Instead of a 12-Arrow Match Average the Rolling Ranking calculations will be completed using the top three Single Arrow Averages. The number calculated will be multiplied by the number three (3) to produce a number equivalent to a three arrow set shot during the 2010 Season.

Computing the Single Arrow Average per Event

*Total arrow values from all matches and sets (TP_{e1}) divided by the total number of arrows (TA_{a1}) = **Single Arrow Average (SAA_{e1})** per event

* SAA_E – rounded to the thousandth decimal – .001 – rounding up for .0005 and above

$$*TP_{e1} / TA_{e1} = SAA_{e1}$$

Top 3 Single Arrow Averages will be used to determine Rolling Ranking

The top three Single Arrow Average's (SAA) calculated during the "ranking period" will be used to formulate the "Rolling Ranking." If an archer has not competed in three events a score of 0 for 12 arrows will be utilized in the Rolling Ranking calculations. The Rolling Ranking Single Arrow Average (SAA_{RR}) will be multiplied by 3 to show an equivalent number to the set play system. The calculated Rolling Ranking Average will be the number used to determine an archer's ranking within the Rolling Ranking System.

$$*SAA_{RR} = \frac{((SAA_{e1} \times TA_{e1}) + (SAA_{e2} \times TA_{e2}) + (SAA_{e3} \times TA_{e3}))}{(TA_{e1} + TA_{e2} + TA_{e3})}$$

$$*Rolling Ranking Average = SAA_{RR} \times 3$$

Rolling Ranking Scoring Example #1:

Archer #1							
		Tournament	Total Points - TP	Total Arrow Count - TA	Single Arrow Average - SAA		
2009 Events Match-Play System	12-Arrows per Match	W. CUP 2 '09					
		GOLD CUP '09	450	48	9.375	Top 3 - SAA _e	
		WORLD TRIALS '09					
		W. CUP 3 '09	215	24	8.958		
		BATTALLA DE CARBOBO - VENEZUELA '09					
		PUERTO RICO '09					
		FESTIVAL OLIMPICO SALVADORENO '09					
	US NATIONALS '09	336	36	9.333	Top 3 - SAA _e		
2010 Events Set-Play System	3 Arrow Sets or 6 Arrow Sets	AZ '10	405	42	9.643	Top 3 - SAA _e	
		TX SHOOTOUT '10	160	18	8.889		
		GOLD CUP '10					
		NOR'EASTER '10					
		US NATIONALS '10					
		SD CUP '10					
		SO CAL SHOOTOUT '10					
GATOR CUP '10							

Rolling Ranking

$$SAA_{RR} = \frac{(9.375 \times 48) + (9.333 \times 36) + (9.643 \times 42)}{(48 + 36 + 42)} = \frac{1190.994}{126} = 9.452 \quad \text{x3} = \mathbf{28.356}$$

$$SAA_{RR} = \frac{(SAA_{e1} \times TA_{e1}) + (SAA_{e2} \times TA_{e2}) + (SAA_{e3} \times TA_{e3})}{(TA_{e1} + TA_{e2} + TA_{e3})}$$

SAA_E - rounded to the thousandth decimal – .001 – rounding up for .0005 and above

Rolling Ranking Average = SAA_{RR} × 3

Rolling Ranking Scoring Example #2:

Archer #2						
		Tournament	Total Points - TP	Total Arrow Count - TA	Single Arrow Average - SAA	
2009 Events Match-Play System		W. CUP 2 '09				
		GOLD CUP '09	460	48	9.583	Top 3 - SAA_e
		WORLD TRIALS '09	755	84	8.988	
		W. CUP 3 '09	219	24	9.125	
		BATTALLA DE CARBOBO - VENEZUELA '09				
12-Arrows per Match		PUERTO RICO '09				
		FESTIVAL OLIMPICO SALVADORENO '09				
		US NATIONALS '09	448	48	9.333	Top 3 - SAA_e
2010 Events Set-Play System						
2010 Events Set-Play System		AZ '10	380	42	9.048	
		TX SHOOTOUT '10	223	24	9.292	Top 3 - SAA_e
3 Arrow Sets or 6 Arrow Sets		GOLD CUP '10				
		NOR'EASTER '10				
		US NATIONALS '10				
		SD CUP '10				
		SO CAL SHOOTOUT '10				
	GATOR CUP '10					

$$SAA_{RR} = \frac{(9.583 \times 48) + (9.333 \times 48) + (9.292 \times 24)}{(48 + 48 + 24)} = \frac{1130.976}{120} = 9.4248 \quad \text{Rolling Ranking Average} \quad x3 = \mathbf{28.274}$$

$$SAA_{RR} = \frac{((SAA_{e1} \times TA_{e1}) + (SAA_{e2} \times TA_{e2}) + (SAA_{e3} \times TA_{e3}))}{(TA_{e1} + TA_{e2} + TA_{e3})}$$

SAA_E - rounded to the thousandth decimal – .001 – rounding up for .0005 and above

$$\text{Rolling Ranking Average} = SAA_{RR} \times 3$$