2010-11 Pre-Showcase SPARQ Testing:
Yo-Yo Intermittent Recovery Test Protocol (YIRT)

WHY IS IT IMPORTANT TO TEST?

- SPARQ provides a standardized method of measuring soccer specific athletic performance.
- There is value in testing athletes each season to track progress.
- The intermittent nature of the YIRT test taxes the body in a way that relates to the nature of soccer.
- Distance covered on the YIRT relates closely to key performance variables:
    - Positional discriminator
    - Player's competitive classification
    - High-intensity work ability

REQUIRED EQUIPMENT

- Cones
- Measuring tape to mark off a 20 meter shuttle zone and a 5m recovery zone as shown in following diagram.
- Yo-Yo Intermittent Recovery audio file.
- Level 2 is the only level to be administered.
- CD/audio player with loud volume setting and fresh batteries.
    - Administrators should test the audio by playing audio file all the way through.
- Test outside on level ground using a grass or turf field.

ADMINISTERING THE TEST

- Test administrator clearly explains the instructions for completing the test
    - See "Pre-Test Instructions" section
- The audio file provides further instruction, including a 45-second introduction that tells players know what to expect.
- The test is run in a group of five to 20 athletes.
- Expect the test to take an athlete from 4 to 18 minutes to complete, covering 480 meters (Stage 12)
- Encouragement from the sidelines from the coaching staff or other athletes is permitted.

OFFICIATING THE TEST

- The test requires two officials for every 10 athletes testing.
    - One official will serve as the primary test administrator, offering instruction & demonstrating the protocol, starting the audio file and assigning warnings or dismissals.
    - The second official assists the lead administrator will help to identify specific athletes who have been assigned a warning or who have been dismissed.

This is a difficult test for athletes as they push themselves to their aerobic and anaerobic limits. It is important to conduct this test in groups of at least 5 similarly motivated athletes.

COURSE LAYOUT

- Measure and mark a 20-meter deep grid with a clearly marked Start/Finish line.
- Measure and mark a 5-meter deep grid to serve as the Jogging/Recovery zone.
- The course should be wide enough to accommodate the group of players to be tested.
    - It may helpful to create sprinting lanes to keep athletes in the same area
- Place cones or discs at each corner highlighted in green on the table below to outline the course.

PRE-TEST INSTRUCTIONS

Communicate the following overview to players before starting the test:

1. *The test is divided into stages. Each stage consists of a pair of 20 meter runs followed by 10 seconds of active recovery.*
2. *When you hear "GO!" you are to run 20 meters - touch the outbound line with your foot – and run 20 meters back without stopping. This will be followed by 10 seconds of recovery. Complete as many pairs of these 20m runs as possible, while keeping pace with the audio cues.*
3. *As the test progresses the amount of time you have to complete each pair of runs gets shorter, so you will be required to run faster in order to keep pace with the audio. You will have exactly 10 seconds of active recovery time between each stage.*
4. *The cues from the audio file will:*
    - *Indicate when to start running*
    - *Indicate when you have reached the halfway point of each stage*
    - *Provide a 3-second countdown to the end of each stage*
    - *Indicate when the stage has ended*
    - *Advise if the pace will increase on the next stage*

DESCRIPTION OF AUDIO CUES

Audio Cue	Cue Type	This Means
"The test begins in 5 seconds"	Spoken	Athletes need to be at Start/Finish Line
"Go" & Beep	Spoken and Sound Effect	Start Running
"Halfway" & Beep	Spoken and Sound Effect	The Stage is halfway over
Sound Effect Crescendo During Stage	Sound Effect	The stage ends in 3 seconds
Loud Beep	Sound Effect	The stage is over
"End Stage 1"	Spoken	Stage has ended, move to next stage
"Increase speed"	Spoken	The next stage is shorter, need to increase pace

WARNINGS & DISQUALIFICATION

An athlete receives a warning if:

- He fails to keep pace with the audio cues;
- He use a running start on any stage;
    - Each athlete needs to be set on the start/finish line before the word “GO”.
- He fails to touch the outbound line with their foot.

An athlete is disqualified if:

- He intentionally does not participate in a stage;
- A second warning is issued.

Note: This is a maximal test and athletes should be given benefit of the doubt in assigning warnings, dismissals or disqualifications.

RECORDING RESULTS

- Overall, when recording results, each athlete's test result is the last stage attained upon either dismissal or retiring from the test.
- The progressions of the test at Level 2 is listed in the lookup table below. Stages with the same pace are shown as colored bands and the pace quickens from one band to the next.
- Test administrators need to continually keep track of the new stage to properly record results.
- Record results in the excel template and send to U.S. Soccer and SPARQ
    - Do not alter the excel template

LOOK-UP TABLE FOR RECORDING RESULTS

YO-YO INTERMITTENT RECOVERY TEST, **LEVEL 2 (BOYS)**

STAGE	METRES	STAGE	METRES	STAGE	METRES
1	40	24	960	47	1880
2	80	25	1000	48	1920
3	120	26	1040	49	1960
4	160	27	1080	50	2000
5	200	28	1120	51	2040
6	240	29	1160	52	2080
7	280	30	1200	53	2120
8	320	31	1240	54	2160
9	360	32	1280	55	2200
10	400	33	1320	56	2240
11	440	34	1360	57	2280
12	480	35	1400	58	2320
13	520	36	1440	59	2360
14	560	37	1480	60	2400
15	600	38	1520	61	2440
16	640	39	1560	62	2480
17	680	40	1600	63	2520
18	720	41	1640	64	2560
19	760	42	1680	65	2600
20	800	43	1720	66	2640
21	840	44	1760	67	2680
22	880	45	1800		
23	920	46	1840		

REFERENCES

1. Kirkendall, DT and H. O'Malley. *Field Assessment of Fitness for Soccer: A study of highly skilled youth and national team members.* Revista de Futbol y Ciencia, Vol 1, No. 1, 2002

2. Krustrup, P, et al. *The Yo-Yo Intermittent Recovery Test: Physiological Response, Reliability, and Validity.* Med. Sci. Sports Exerc., Vol. 35, No. 4, pp. 697–705, 2003.

3. Krustrup, P., et al. *The Yo-Yo IR2 Test: Physiological Response, Reliability, and Application to Elite Soccer.* Med. Sci. Sports Exerc., Vol. 38, No. 9, pp. 1666–1673, 2006.

4. Bangsbo, Jens et al. *The Yo-yo Intermittent Recovery Test: a useful tool for evaluation of physical performance in intermittent sports.* Sports Med. 38(1):37-51. 2008

SUBMITTING RESULTS

Below are cut off dates for submitting results using the contact information. Please note that we request results to be submitted to both SPARQ and U.S. Soccer.

November 1 Testing Cut Off	November 15 Testing Cut off
Andromeda	Albertson SC
Atlanta Fire United	Arsenal FC
Birmingham United	Baltimore Bays Chelsea
Cal Odyssey	California Development Academy
Chivas USA	CASL Chelsea FC Academy
Classics Elite	Charlotte Soccer Academy
Clearwater Chargers	Chicago Fire
Colorado Rapids	Chicago Magic
Colorado Rush AJ Auxerre	Cosmos Academy East
Concorde Fire	Cosmos Academy West
Crossfire Premier	Crew Soccer Academy
Dallas Texans	D.C. United
De Anza Force	Derby County Wolves
FC Dallas	Empire United
Houston Dynamo	FC DELCO
IMG Soccer Academy	FC Greater Boston
Kendall SC	FC Milwaukee
LA Galaxy	FC Westchester
Lonestar SC Academy	Indiana United Academy
McLean Youth Soccer	Internationals
Nomads SC	Irvine Strikers
Real Colorado	Kansas City Wizards
Real Salt Lake AZ	Match Fit Chelsea
Richmond Kickers	Met Oval
Richmond Strikers	Minnesota Thunder Academy
San Diego Surf	New England Revolution
San Jose Earthquakes	New York Red Bulls
Santa Cruz Breakers Academy	NJSA 04
Seattle Sounders	North Carolina Fusion
Solar Chelsea SC	North Meck SC
South Carolina United FC	Oakwood Soccer Club
Texans SC Houston	PA Classics
Texas Rush AJ Auxerre	Pateadores
Virginia Rush AJ Auxerre	Players Development Academy
Weston FC	Potomac
	Real So Cal
	Seacoast United
	Shattuck Saint Mary's Soccer
	Sockers FC
	South Central Premier
	St. Louis Scott Gallagher Metro
	St. Louis Scott Gallagher Missouri
	Vardar