The 20th North America, Central America and Caribbean Track and Field Coaches Association Congress
Houston, Texas, USA

Introduction

Fifty-four coaches and expert speakers from four continents and 14 nations took part in the 20th Anniversary Congress of the North America, Central America, and Caribbean Track & Field Coaches Association (NACACTF-CA) in Houston, Texas, USA, 14-17 October 2010.

A new format of Friday lectures at the hotel and Saturday practical sessions at the track proved popular with the participants and, in addition to the wonderful autumn weather on both days, the success of the event was greatly enhanced by the hospitality provided by the Marriott Medical Center Hotel and the track facilities provided by Rice University one block away.

Terry Crawford, the United States Track and Field Federation (USTFA) Director of Coaching and a former US Olympic Head Coach delivered Friday’s keynote speech, entitled Women in Coaching, and the main presentations were given by Lyle Knudson (USA), Tom Tellez (USA), John Godina (USA), and special guest Vitaly Petrov (RUS), with the latter three also leading practical sessions at the track. The practice related activities were linked by the themes of comprehensive training, technical development and stability. It was striking that all of the expert presenters also mentioned the importance of forces moving into the ground, whether in the middle of the shot put ring, on the vault runway, during a sprint, and even in a distance races.

The following sections give highlights from the main presentations.

A systematic and Comprehensive Program for Distance Running
Lyle Knudson (USA)

Knudson, who has coached a number of Olympic distance runners, led 11 USA teams to international events and organised the USA junior elite training camp system, began his presentation by saying that all distance coaches ought to spend some time with sprint and field event coaches to learn more about speed and power. Indeed, distance running is premised on the need for speed at any particular distance, but as Knudson noted, American distance coaches have long been wedded to the philosophy of more and more long, slow distance in training. Knudson’s main point was that the speed desired in racing needs to be trained in the athlete. Long, slow distance training makes a long, slow distance runner. Moreover, the greater the maximum speed of the athlete, then the better off he/she will be when running at a percentage of maximum speed in a race or training session. In other words, an athlete who has more speed will be able to hold a faster pace at 90% effort than a slower athlete!

Knudson detailed his programme, which he has developed and tested over a number of years. It is based on two-week cycles in which the athlete trains at five different paces: “Over Distance”, “Under Distance”, “Over, Over Distance”, “Under, Under Distance”, and “Race Distance”. A 3000m runner, for example, would train at paces and training volumes appropriate for 5000m, 1500m, 10,000m, 800m and finally 3000m. On an Over Distance day, the training might be 5000m of runs at 5000m pace – i.e. 5 x
1000m, 6 x 800m, even 25 x 200m. He also uses what he calls anaerobic threshold runs, which combine aerobic and anaerobic threshold paces – six minutes running at aerobic pace straight into 12 minutes at anaerobic threshold pace and then 6 minutes aerobic pace. Picking up one of the main themes of the day, he said that stability is vital for running efficiency and the creation of forces on the ground that lead to fast running.

Load and recovery days include weight training and circuits. All warm-ups and flexibility exercises are dynamic and progressive. Warm-downs, too, are dynamic and often in reverse order – faster to lighter – and only after warm-down are static exercises used.

**Sprint Mechanics and the Sprint Start**

Tom Tellez (USA)

Tellez, who is well known throughout the coaching world for his lectures and most of all for coaching multi-time world and Olympic Champion Carl Lewis (USA), said sprinting is a natural thing, but only if one allows the body to work naturally. No pawing, no reaching, no pulling, just picking the feet up and putting them down.

Using his excellent demonstration abilities, Tellez took the participants through the technical development of both the sprinting action and the block start. Describing the sprint cycle in detail, he said the main requirement is to create force against the ground by driving the hip and foot downwards and that doing this would set up the natural recovery, pointing out that the tighter the heel on recovery, the faster the turnover. Arm action, contrary to what some say, is vital to the sprint motion as it sets up the rhythm and range of the stride, and he showed the proper angles of the forearm as the length opens on the front-swing and closes on the back-swing. It is also vital that the sprinter plant the full foot and not land on the toe – the heel can hit as well, but the contact is full and allows for the stretch reflex in the foot, ankle and Achilles tendon. Videos of a former Tellez
The Basic Rules in Pole Vault Performance and Pole Vault Methodology

Vitaly Petrov (RUS)

Petrov, best known as the coach of world record holders Sergey Bubka (UKR) and Elena Isinbayeva (RUS), arrived from two days of travel and missed flights just in time to launch into a typically passionate and informative presentation. He discussed his training programme of technique and general conditioning detailing the different emphases from beginner to elite level vaulter in gymnastics, running, vaulting technique, and multi jump exercises. Again, stability of posture as the basis of any movement emerged as vital, this time to the important aspect of the sprint motion, which is required to develop the speed and position for a successful plant and vault.

On Saturday Petrov worked with several vaulters from Rice University and then was gracious enough to spend Sunday at St. John’s School with 35 high school and middle school vaulters, whom he took through basics of core athlete, the 1988 Olympic Champion Joe DeLoach (USA), and DeLoach’s young son were used to portray this point. The progression of mechanics from walking to jogging to running to sprinting was described and easily seen in the video. Finally, he also covered the development of the penultimate stride in the long jump.

The Shot Put: Rotation through Extension and Power from Stability

John Godina (USA)

“Stability is vital in every portion of the rotational shot put technique. It is necessary prior to the initiation and must be maintained throughout the entire movement,” said the four-time world champion Godina. Balance, positions, and movement are all stability dependent. Of course, he said, the distance thrown depends on the forces into the ground, noting that at only two points in the rotational shot motion is the application of force from the ground up necessary – at the double supports, the only times where force can be produced, and those forces are all pushing forces. Throwers must, therefore, learn to wait at single support and that nothing can be done in flight! Stabilising muscles create a working platform for the movers and accordingly he identified the main muscles that stabilise and those that create movement power before describing the best ways to train and integrate them into the whole rotational motion.

Godina used the practical session time for integrating postural stability with motion, as well as teaching training exercises to strengthen the muscles needed for stability. He also stressed the primacy of vertical forces: the legs drive into the ground to create vertical forces and the focus of the release is vertical as well. Many of the exercises with medicine balls and the shot were constructed to teach the feel and timing of the vertical motion of the release, beginning from the ground up through the shot! Although the rotational shot was the primary concern of his remarks and teaching progressions, he did stress the importance of many of the same exercises and principles for the discus throw and the traditional glide shot put while noting important differences in technique and preparation.

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Finally, we take this opportunity to announce that the 21st NACACTFCA Congress will take place in Merida, Mexico on 6-9 October 2011. More information, including the presentations from the 20th Congress, is available at www.nacactfca.org.

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