COMPONENTS OF 400 METER TRAINING Troy A. Johnson

Iroy A. Johnson
M.S. Human Performance in Sport
IAAF Diploma/USATF Level III Certified

"To work within the athlete"

PHILOSOPHY-MOTTO-CREED

- **▶**Speed
- **▶**Strength
- ▶Power
- ▶Flexibility
- **▶**Endurance

BIO-MOTOR UNITS TRAINED

- ▶Maximal Velocity
- ▶Optimal Velocity

SPEED



- ►Speed attributes are brought out by Strength development
- ► Make drill work count
- ▶What worse the a bad drill?.....NOTHING!

SPEED

- ► Redundancy of performance with same or better result
- ► Helps maintain coordination with fatigue onset

STRENGTH



- ►Ability to apply force into the ground with positive displacement of energy quickly
- ▶Backwards running

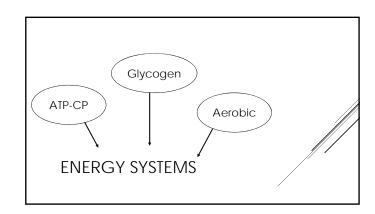
POWER

► Ability to move limbs in a dynamic range of motion

FLEXIBILITY

►The ability to resist onset of lactacid

ENDURANCE



- ► The body's first energy source

 ► "Use it or lose it"

 ► Helps set up optimal velocity

 ATP-CP ENERGY SYSTEM
- ► Majority of 400m training is done in this system

 ► Allows for interval training

 GLYCOLIC ENERGY SYSTEM

- ► Allows for recovery of other energy systems
- ► All workouts will have an aerobic component

AEROBIC ENERGY SYSTEM

- ▶Flying 20',30',40'
- ▶Block Starts 5-10x10m, 5-10x20m
- ▶Sprints <80m rest for 1 set/3-4min
- ▶4x100 relay exchange zone

ATP-CP TRAINING

- ▶4-6x150m 4-7min rest
- ▶2x3x200 5min/10min sets w/recovery jog
- ▶6-10x200 3min

ATP/ GLYCOLYTIC TRAINING SPEED ENDURANCE

- ▶4-6x300m 7-10 min rest
- ▶6-10x200m 3-5 min rest

GLYCOLYTIC TRAINING SPECIAL ENDURANCE

▶300m

- ▶500m
- ▶600m

SPECIAL ENDURANCE II

Lactate Threshold Training

- ► Ability to resist lactic acid in training
 - ► 3x300m w/7 min rest

Lactate Capacity Training

- ► Ability to withstand lactic acid within an interval
 - ▶ 3x350m w/full recovery

- **▶**Speed
- **▶**Power
- **▶**Strength

FALL CONDITIONING

- **▶**Speed
- ▶Strength-Lactate Capacity training
- ▶Aerobic

WINTER TRAINING

- **▶**Speed
- ▶Aerobic
- ▶Recovery

SPRING TRAINING

- ► What you eat fuels and repairs the body
- ▶ Aids in recovery
- ► Gains "will" be lost if proper nutrition does not happen immediately after workout



- ► Body will perform the best when it's "mentally' and physically recovered
- ▶Get away from a "Funnel" attitude in coaching.
- ► Every Meso, Micro, and Macro cycle in periodoized training should address recovery

RECOVERY

- ▶ Dedication
- ▶ Discipline
- **▶**Commitment
- **▶**Belief
- ▶Faith

CHAMPIONSHIP MINDSET

