Programming “Speed” for the Combined Event Athlete

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Outline of Today’s Talk

- **Speed vs. Special Endurance**
  Should speed always be the focus?

- **Designing a System**
  Lots of plates in the air!

- **Effects of Strength on Speed**
  Selecting the right exercises

- **Moving forward with the plan**
  Macro-Cycle Considerations

- **Neuromuscular Coordination**
  Velocity Zones

- **Sample Micro-Cycles**

- **Grouping Considerations & Final Thoughts**
How Important is Speed?
Speed is ultimately the greatest limiting factor in any event.” -- Gary Winckler
Beyond Speed...

Special Endurance

- Beyond Speed in the Decathlon – Andy Higgins
  - Running technique
  - Running rhythm
  - Special endurance
  - Strength endurance
- 400 & 1500 meters
- Not falling into the speed trap
Speed Approach

Acceleration  Max Velocity  Special Endurance 1 & 2
Speed Approach

Acceleration → Max Velocity → Special Endurance 1 & 2

Short-to-Long Approach
Speed Approach

Acceleration <-> Max Velocity <-> Special Endurance 1 & 2

Long-to-Short Approach
Gotta have a system...
Designing a system...

**Essential Components**

- Speed
- Tempo
- Strength

Event Technique
Effects of strength on speed
Strength Matters!
Strength Matters!

Big Force + Minimal Time = Run Faster
Exercise Selection

Max Strength

(Acceleration)

- Squats
- Overhead Presses
- Bench Press
- Mid-Thigh Pulls
- Full Pulls
  - Push – Pull
  - Friday drop 10%
Exercise Selection

Strength-Speed

(Max Velocity)

- Push-Jerk
- Squat – Press
- Mid-Thigh Pulls
- Mid-Thigh Clean / Snatch
- Power Clean / Snatch
Exercise Selection

Speed-Strength

*(Competition)*

- CM-Clean / Snatch
- Jump Squats
- Complexes
Moving forward with the plan...
Programming Considerations

- Volume & Intensity
- Rest & Recovery
- Compatible Grouping
The Yearly Plan – General Prep Phase

**Speed**
- Hills, Progress to flatland

**Event Technique**
- Progressions

**Tempo**
- Build to 3k meters

**Strength**
- Lower intensity (8-10 reps)
The Yearly Plan – Specific Prep Phase

**Speed**
- 95-100%, full recovery, free lap

**Event Technique**
- Pair with speed work (approaches)

**Tempo**
- Volume stabilizes

**Strength**
- Increase intensity (3-6 reps)
- Decrease volume
The Yearly Plan – Competition

Speed
- Volume maintained

Event Technique
- ^ intensity from comps

Tempo
- Decrease volume

Strength
- Decrease volume
Let’s take a closer look...
Neuromuscular Coordination

Training = Neural, not Metabolic
- Speed is a skill
  - Adequate exposure is required (very demanding)

Most Dangerous
- May require 10 days – 2 weeks to recover

Least Understood
- Why can’t we do a 1 rep max a second time?
Velocity Zones

**High Intensity: 95% - 100% of best time**

- High CNS demand
- Enhances muscle fiber recruitment
- Improves speed
- Requires at least 48 hours of recovery

Velocity Zones

Medium Intensity: 76% - 94% of best time

- Too slow to be specific to the training objective
  - Biomechanics
- Too high to recover adequately within 24 hours
  - Injury

Velocity Zones

*Low Intensity: 75% of best time or slower*

- Enhances work capacity
- Promote leanness
- Enhance mood state
- Incorporate as 800/1500 pace work

  - Relaxation
  - Mood state
  - Readiness to train relative to complete day of rest
Additional Considerations

- Keep all running workouts above 95% or below 70%
- Start high in intensity and move up in volume
- Lift weights on speed day
- Use tempo for recovery & pace work
Sample Micro-Cycles
Sample Week - GPP

**Monday**
- Steep Hill Sprints; Lift

**Tuesday**
- Tempo; Skill Progression

**Wednesday**
- Long Hill Sprints (long-short), Lift

**Thursday**
- Tempo; Skill Progression

**Friday**
- Shallow Hill Sprints; Lift

**Saturday**
- Pool Tempo

**Sunday**
- Rest & Recover

*Progress to flat land speed work*
Sample Week - SPP

Monday
- Starts; Speed; LJ; PV; Lift

Tuesday
- Low intensity event tech; Tempo

Wednesday
- Non-contact/GS Circuits

Thursday
- HJ; SE; Lift

Friday
- Low intensity event tech; Tempo

Saturday
- Starts; Hurdle Rhythm/SE

Sunday
- Rest & Recover

*Progress to flat land speed work*
Sample Week - Competition

Monday
- Speed/Hurdle; LJ/PV; Lift

Tuesday
- Tempo; Throw

Wednesday
- SE; Hurdle; HJ; Lift

Thursday
- Non-contact

Friday
- Low intensity event tech; Tempo

Saturday
- Pre-meet / Comp

Sunday
- Rest & Recover
Grouping Considerations & Final Thoughts
Compatible Grouping Considerations

- **Neuromuscular Demand**
  - Group high together & low together

- **Coupling Time**
  - Period of time in which force is being applied

- **Technical Commonality**
  - HJ & Javelin

- **Rhythm Demands**
  - 110H ➔ Discus
  - SP ➔ 200m
Let’s Talk