# Bike Racing: General Strategies

#### Adam Mills, MSEd

- Coaching full time since 2008
- Masters in Exercise Science, University of Kansas
- USA Cycling Level 1 Coach
- Training Peaks Level 2 Coach
- Clients have earned 24 national championships in 11 disciplines
- Director/ Assistant Director Sportif: UCI CT: Elevate Pro Cycling 2016-17
- Manager: Mercy Cycling/ Think Finance/ Elevate Domestic Elite 2009-2015

#### Taylor Warren, BSEd

- Bachelors in Exercise Science, Colorado State University
- USA Cycling Level 1 Coach
- Training Peaks Level 2 Coach
- Pro racer on CS Velo

- Based Around the Event
- Based on Personnel Available
- Team and Individual Goals

#### Event

- Discipline- Road, Track, Criterium
  - Each has nuances that can favor different strategies
- Know the history of the event
  - How have the last ~5 editions of the race played out
- Know the terrain or strategic features
  - Climbs, descents, pinch points, corners
- Weather and how it will/ could affect the race

- Based on Personnel Available
  - Does your team have riders who can accomplish the team goal?
    - Do you need to choose a new goal?
  - What are strengths and weaknesses of your riders?

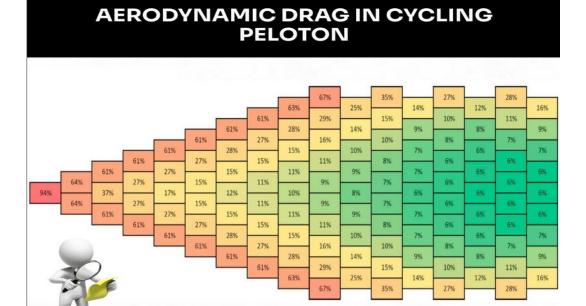
- Team and Individual Goals
  - What is the Goal?
    - Win outright
    - Most Aggressive, Lap Leader
    - Points
    - Team classification
  - Announcer shout out
    - Primes, breakaways (regardless of success)

- Team and Individual Goals
  - How to create scenarios to maximize odds of success.
  - Good matchups
  - Probability of success
- Breakaway
- Climbing
- Crosswinds
- Field Sprints
- Time bonuses
- Primes

All require different approaches and variations depending on riders

- The Physics of Strategy
  - Drafting
  - Positioning

 Drafting is the basis of ALL tactics in road racing and criteriums



The percentages values are aerodynamic drags as a percentage of the drag of an isolated cyclist riding at the same speed.



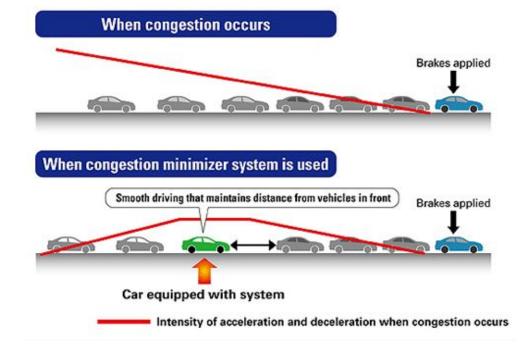
#### **TEAM TIME TRIAL DRAG**

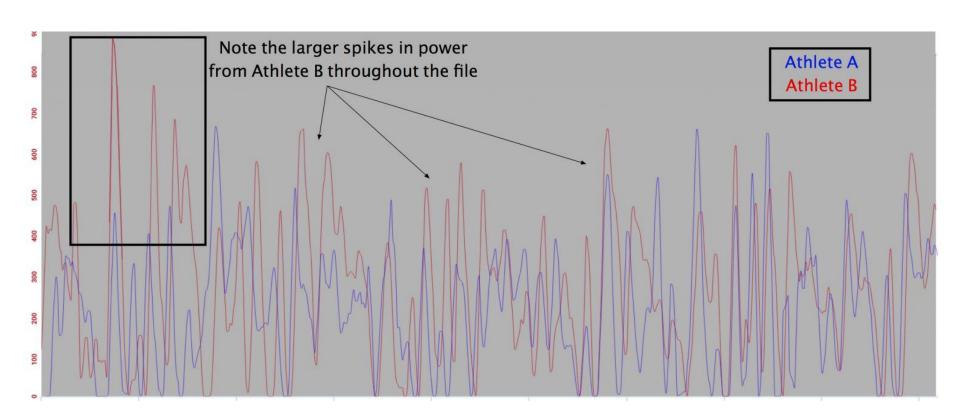
Aerodynamic resistance (drag) in drafting cycling groups. Percentage indicates drag compared to cyclist alone.

AVG: 100%
AVG: 80.9%
AVG: 70.2%
AVG: 63.4%
AVG: 58.9%
AVG: 55.8%
AVG: 53.4%
41.5% AVG: 51.6%
39.8% 41.2% AVG: 50.2%
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# The Concertina Effect:

Image of congestion prevention effect with the system





Teammates "In Play" and Teammates "Out of Play"

- In Play: forward enough to cover moves, typically in the first 20 spots
- Out of play: Sitting in the field, staying sheltered and conserving energy

- Communication around tactics
  - Pre-race communication
  - Communication during the race
  - Communication after the race

#### Harsh Truths of Amateur Racing

- Most plans fail because teammates act selfishly at crucial moments
- Complicated plans are just that
- Keep tactics as simple as possible
- "The plan" never works as drawn up
- Adapt your "plan" to meet the demands of the race
- Teammates must be in position to win a race before they can help each other

#### **Harsh Truths of Amateur Racing**

- Team tactics: In essence, everyone covers everything until the strongest guys establish a break
- There is no "setting tempo"
- There are no team leaders
- Do not designate team leaders until the selection has occurred in the race
- Protected rider: "team formation" is not a reality, it is the responsibility of the protected rider to stay sheltered

#### **Pre-race Communication**

- Establish defined and realistic goals
- Establish expectations for each rider
- Who is riding well, who is sick etc.
- Typical plans for road and criterium races?

#### Communication During the Race

- How does everyone feel?
- Upcoming strategic points to be aware of
- Revision of the "plan"
- Privacy of in-race talk

#### Communication After the Race

- Immediately following the race
- Everyone talks about the race, everyone listens
- Individual and as a team
  - -What was done well, what can be improved
  - Winners and learners
- Discuss how to improve for next time

#### Questions???