

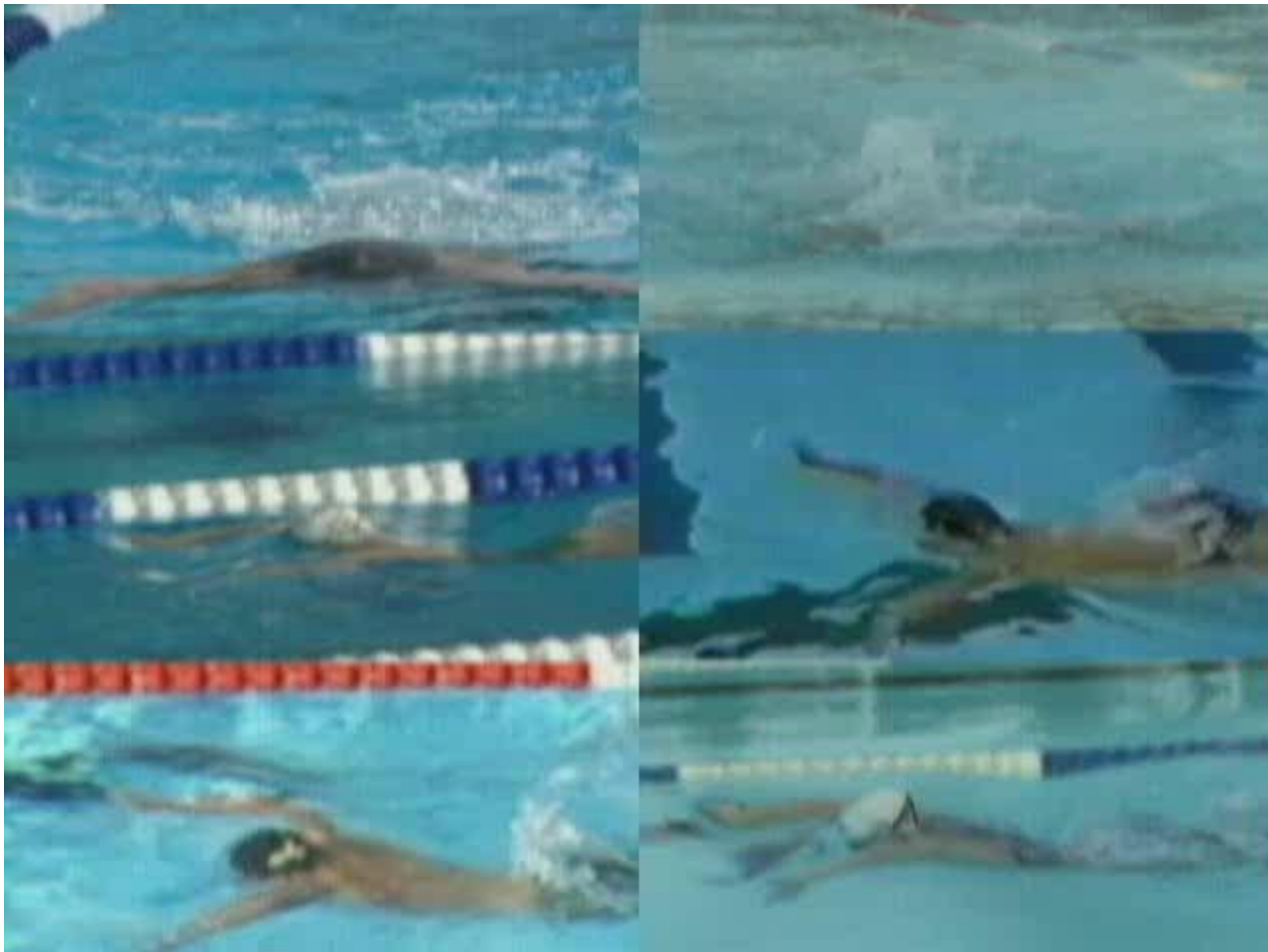
An underwater photograph showing several swimmers in a pool. The water is clear and blue. The swimmers are in various stages of their strokes, with some arms extended forward and others pulling back. The lighting is bright, creating a shimmering effect on the water's surface and the swimmers' bodies.

Diff'rent Strokes for Diff'rent Folks

Russell Mark, USA Swimming
Scott Colby, USA Swimming



The best definitely look different...





“Old School Breaststroke”





“Rookie Breaststroke”



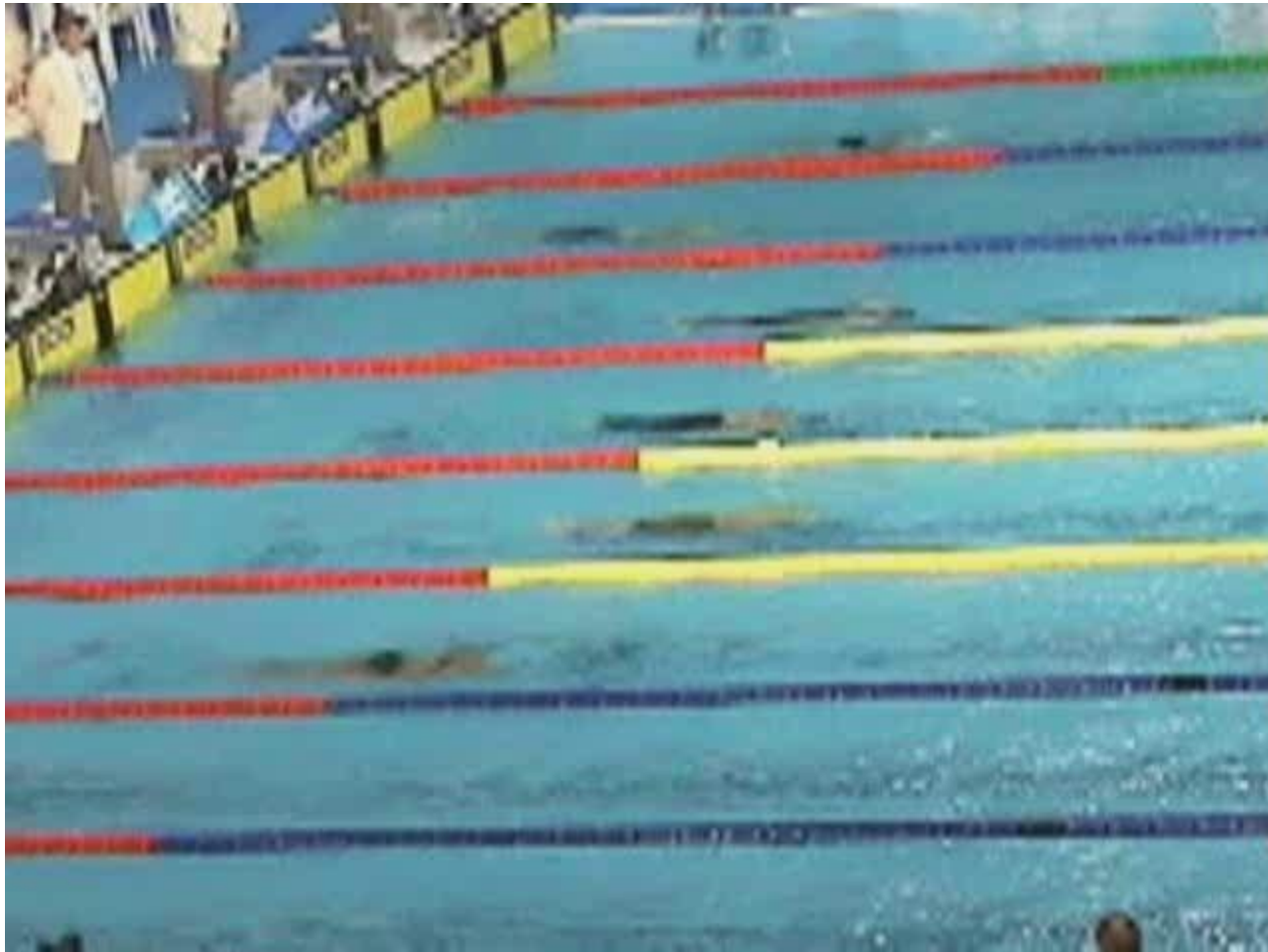


...but here's what all of the best do well.

- Maintain forward velocity throughout the stroke
 - Minimal “stop-and-go” action
- Get the most out of the kick and forward drive
 - Races are won in the spaces between the strokes



Leisel Jones, 2007 Worlds 200 brst final





The key to the best breaststroke:

**Making the pieces
work together**



$$1 + 1 = 3$$

- It's about more than just pulling and kicking
- Make it all work together to:
 - Keep moving forward
 - Swim downhill on the extension/kick





Making the pieces work together comes down to:

1. **Line of the body**
2. **The pull set-up**
3. **Timing of the kick**



1. Line

Engage the core throughout the stroke.

- The core is the key to transferring all of your energy forward.

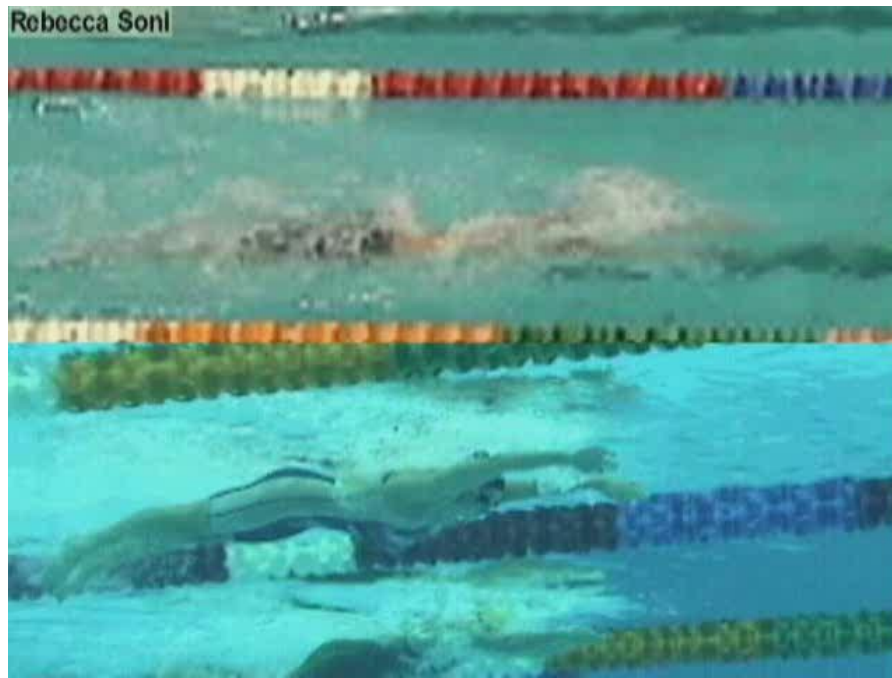




1. Line

Engage the core throughout the stroke.

- At the peak of the stroke
 - Maintains speed...minimizes “stop-and-go”
 - Don’t over-arch your back and get too high
 - Best opportunity to use the core on extension

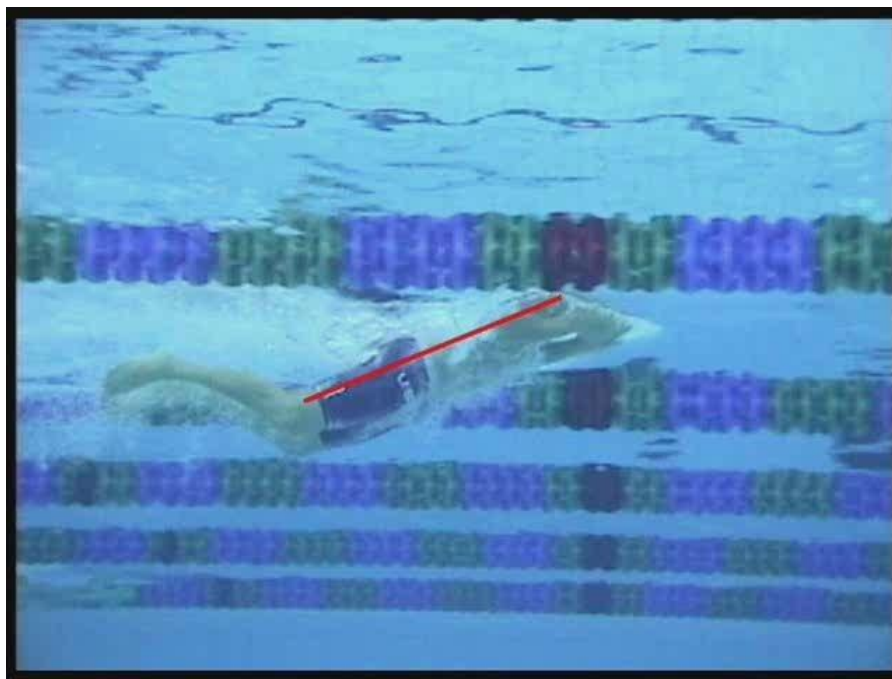




1. Line

Engage the core throughout the stroke.

- At full arm extension
 - Drive forward through the core
 - Extend with the body, not just the arms
 - With core engaged, you'll get everything you put in and more

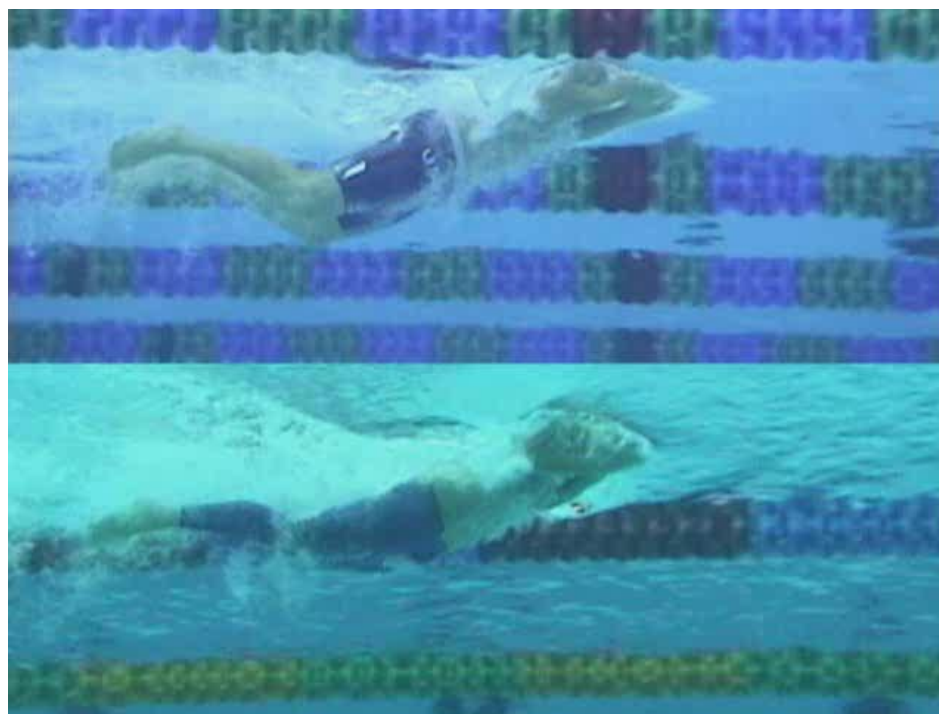


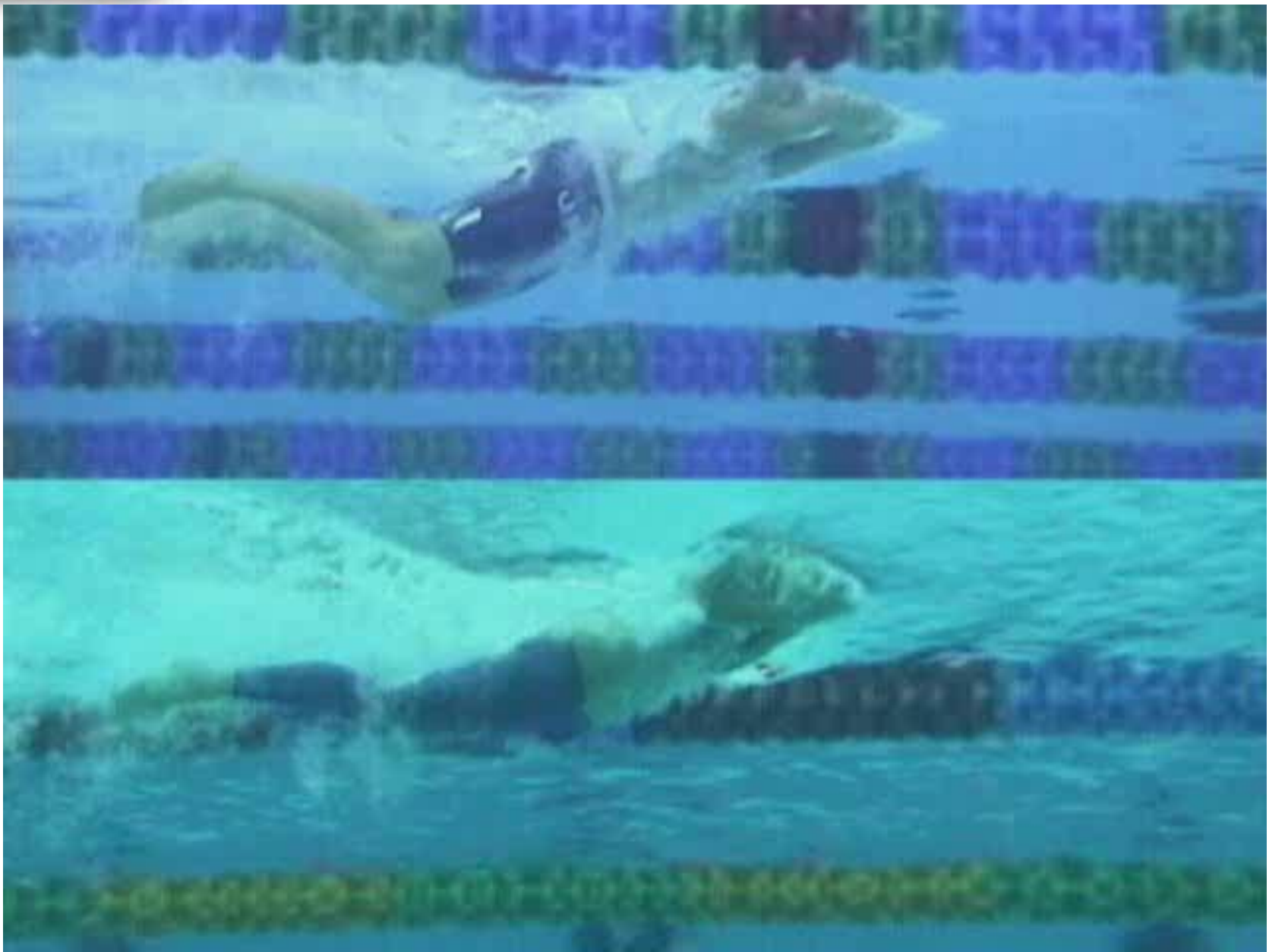


1. Line

Engage the core throughout the stroke.

- Hold the best body line through the extension
 - Maximize distance per cycle
 - Affected by everything that happens earlier







2. It starts with your pull & breath.
- The pull sets up your line and timing
 - Have a distinct outward scull
 - Get propulsion and breath on inward pull





2. It starts with your pull & breath.

- **Avoid:**

- Pulling back too soon

- Breathing too early

- Pulling back too far

- Lifting the body up too high

- **All of these things will hurt your line**

Don't over-do the pull!

It's propulsive, but it doesn't dictate your speed.



1/2 Breaststroke Pull Drill



3. Timing

Crucial part of maximizing your kick and speed

1. Set-up for the kick

- Start the knee bend towards the end of inward pull
- Prior to set-up, hold the line through the core
- Should be fast

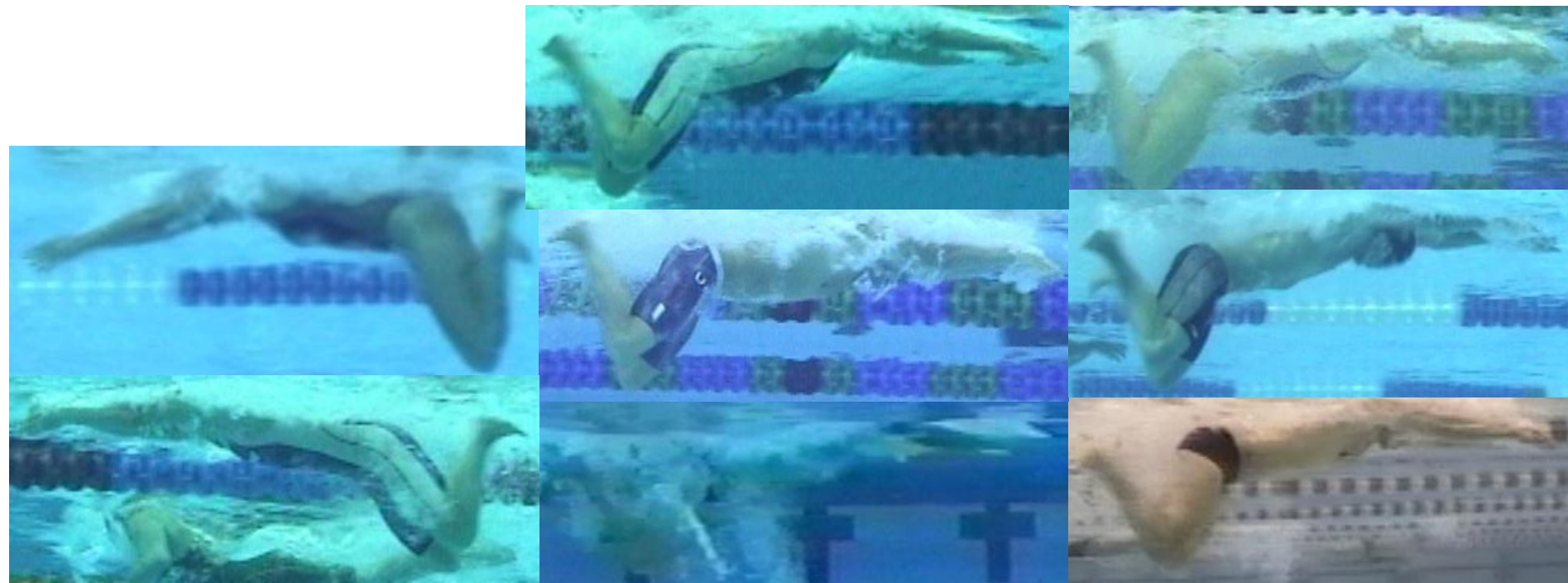




3. Timing

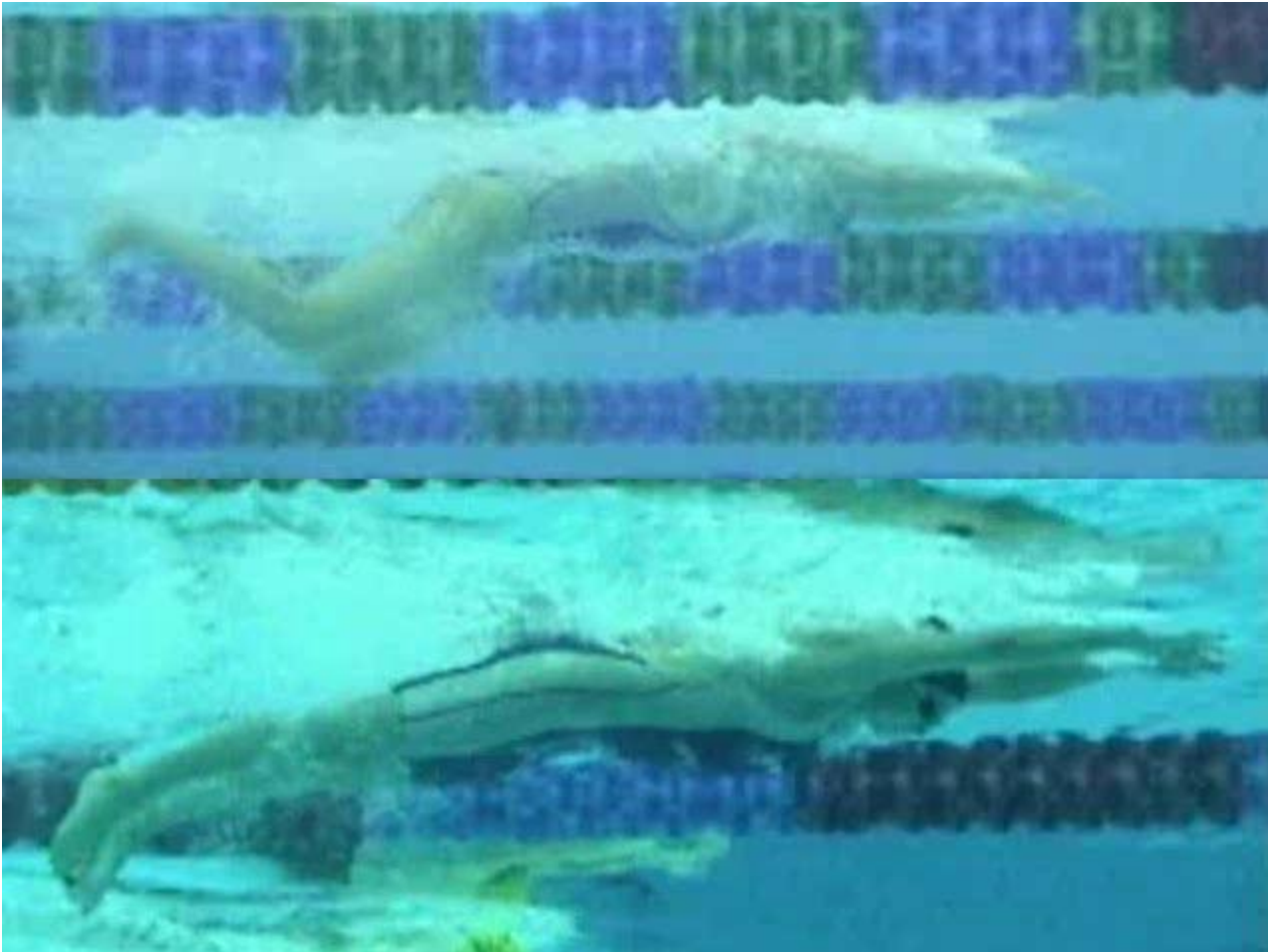
2. Push back with the feet and legs

- Start to push back when upperbody is lined up
 - Arms just reach full extension
 - Head gets in line



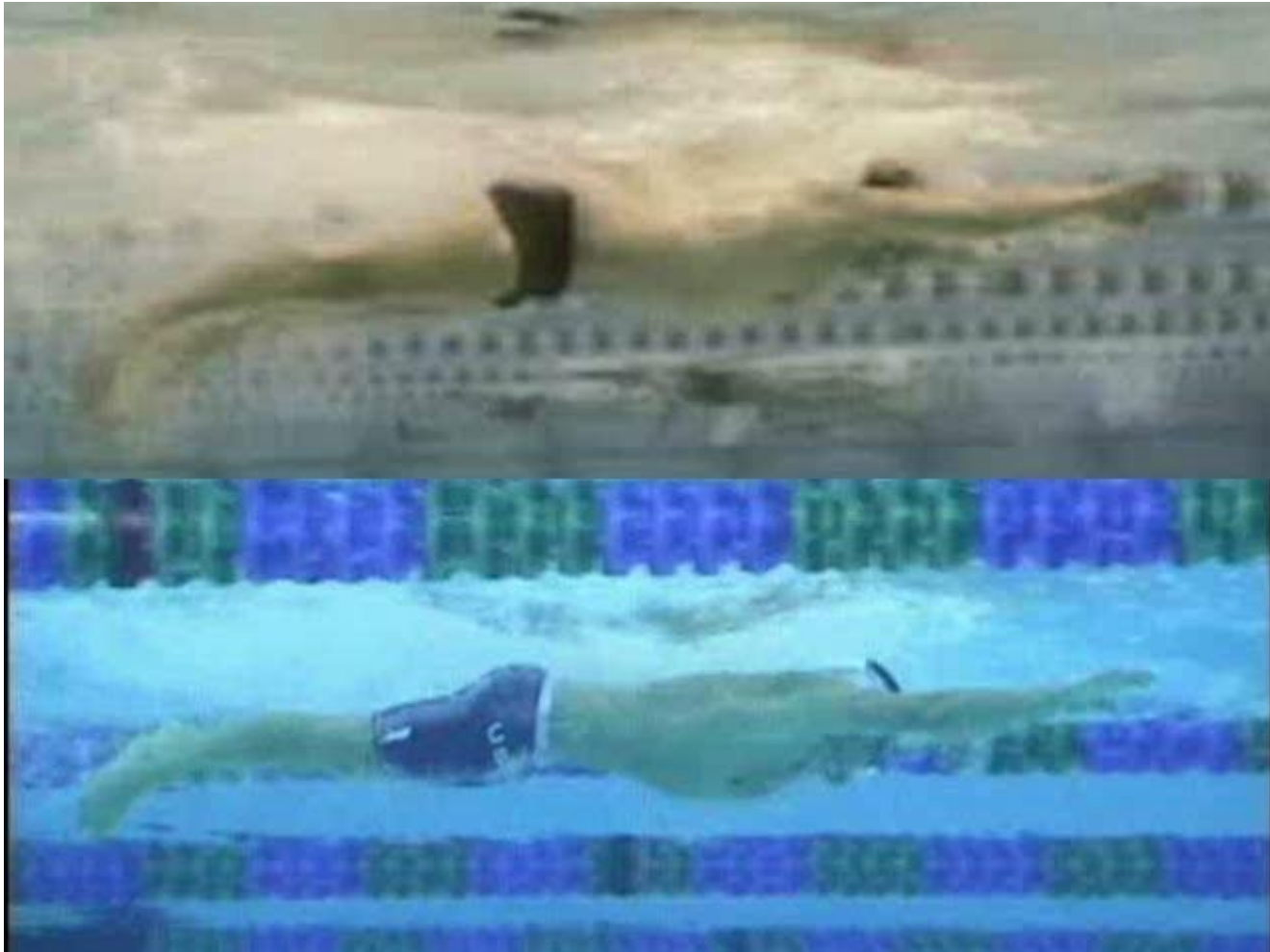


Jessica Hardy / Rebecca Soni



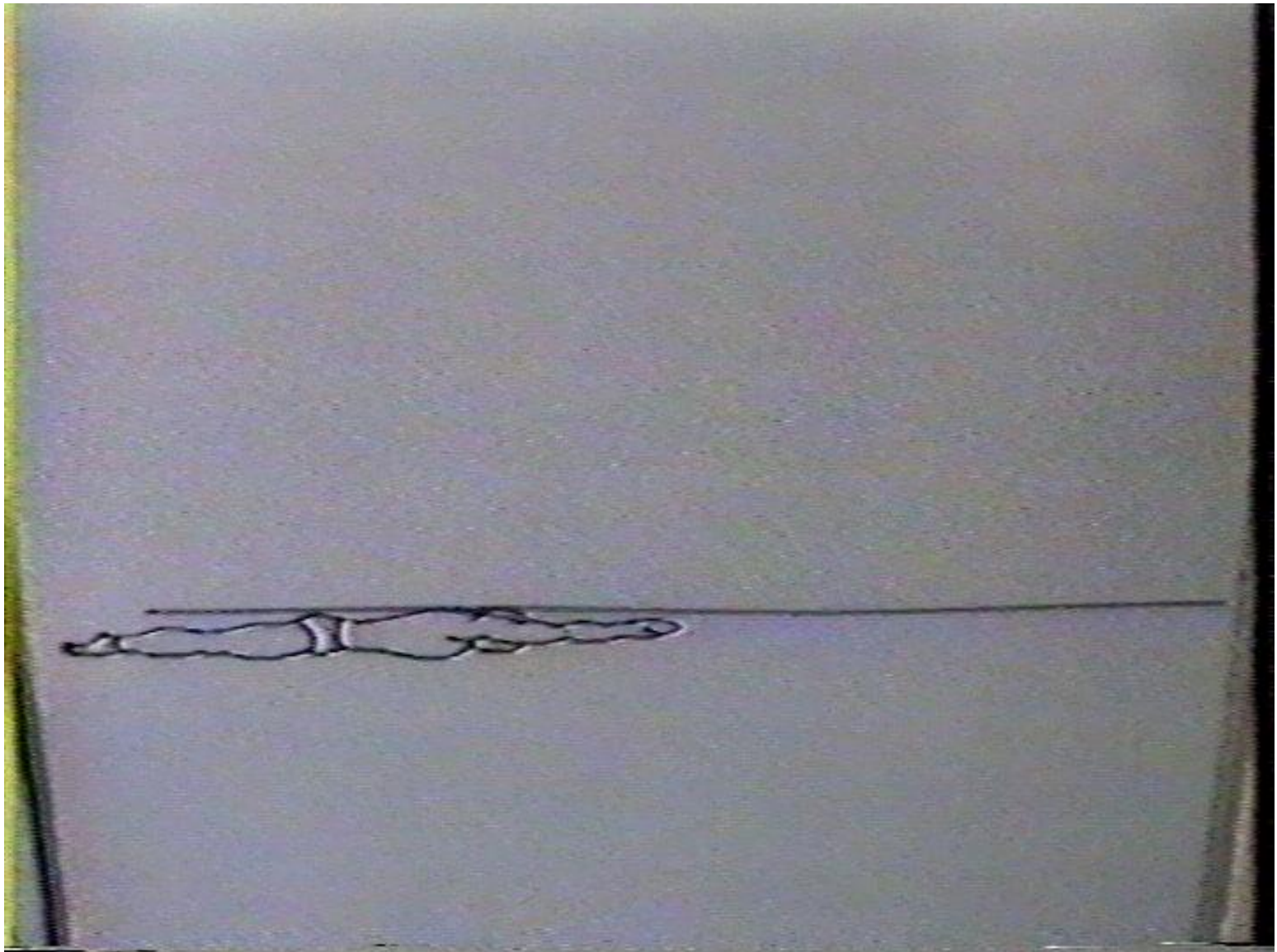


Mark Gangloff / Brendan Hansen





Flow





6 Flutter Kick Strokes - Russian





“Pretzel” Drill





Other Drills

- 2P/1K
- 4,3,2,1P/K
- 4,3,2,1 K/P
- Upside Down Underwater
- Single Arm
- Paddles/Fins



Pullouts

- **Body line** is just as important for maximum velocity and efficiency
- Keep the arms in a strong position
 - Not behind the body
- The dolphin kick
 - A lot of variation
 - **Timing and size of the kick**



Pullouts

- **Rules**

- Hands must move apart before kick initiated

- **Timing**

- Downbeat of the kick can take place after that

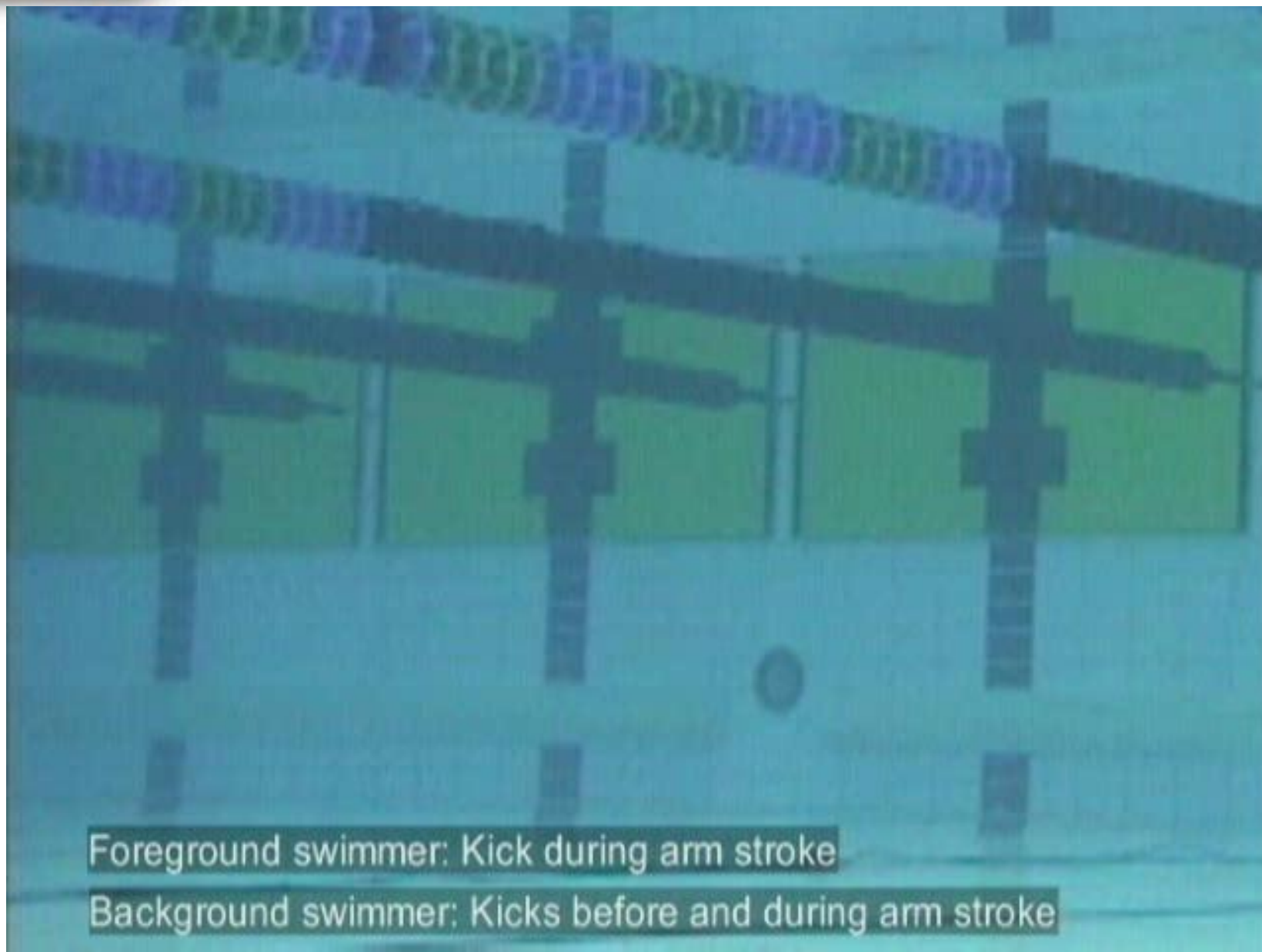
- Gets body lined up for the pull

- Doesn't get 'absorbed' by the

- **Size**

- Keep the dolphin kick compact

- Kicking too big will hurt the body line

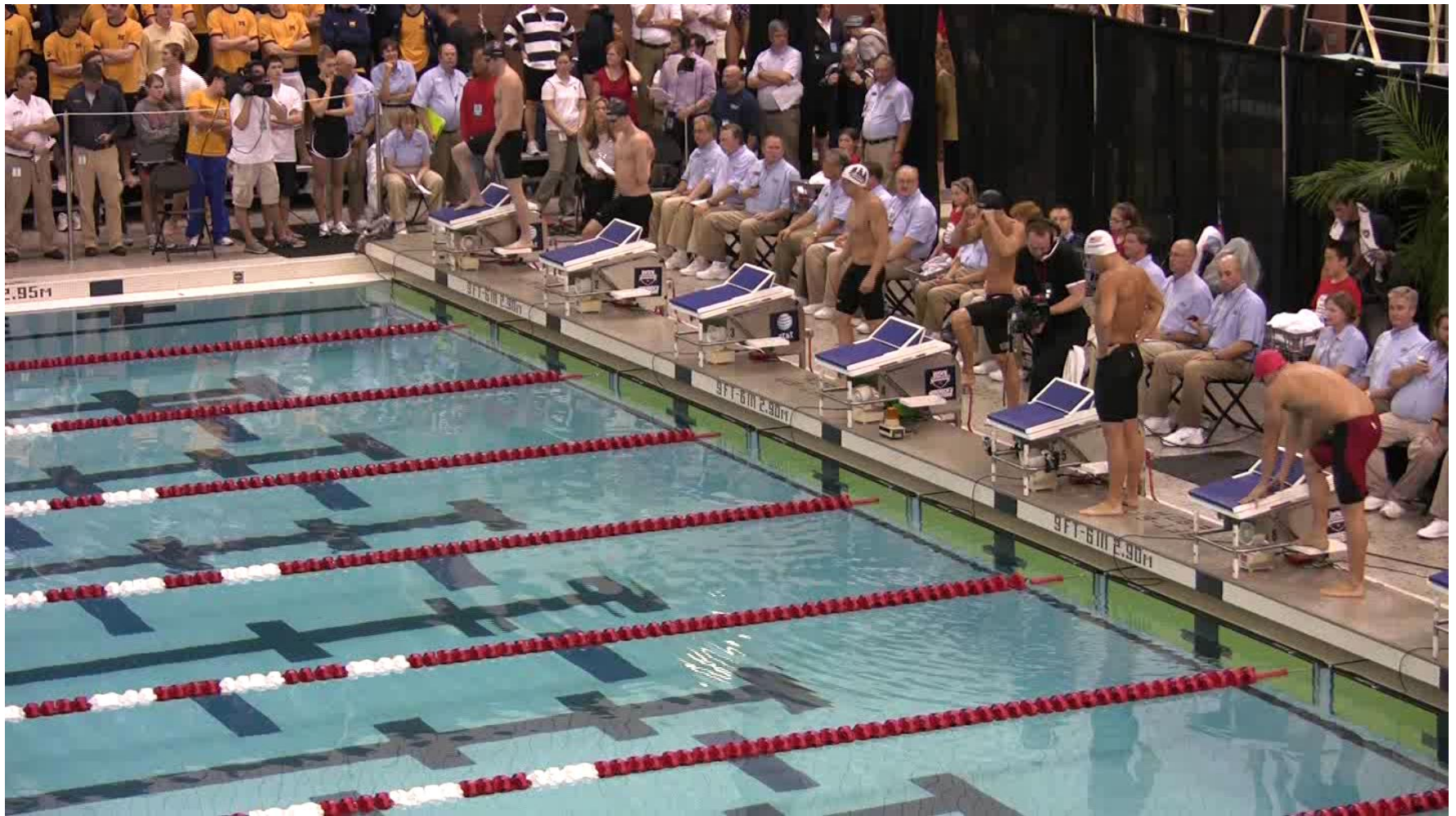


Foreground swimmer: Kick during arm stroke

Background swimmer: Kicks before and during arm stroke

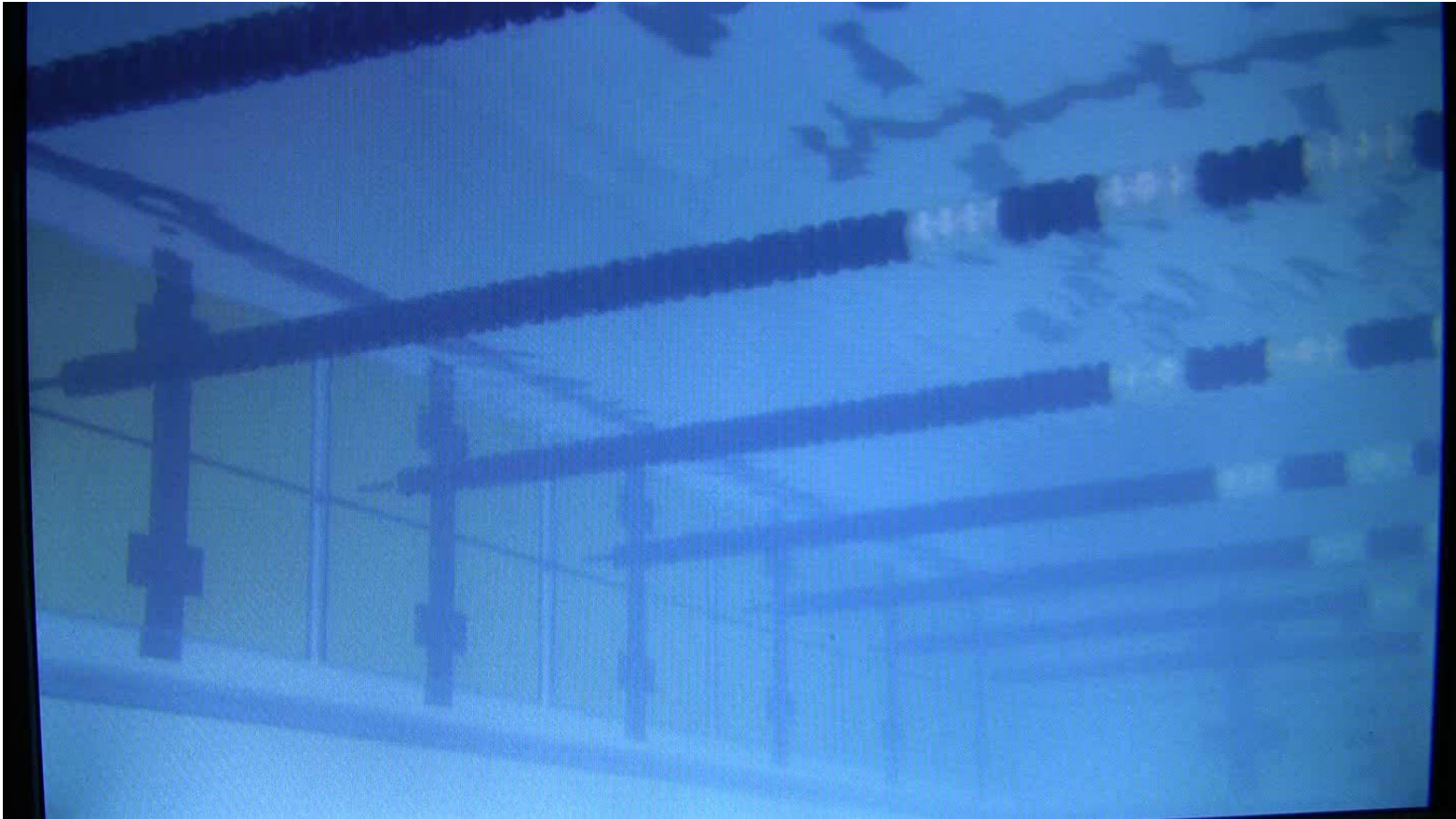


2010 Nationals-Ohio State





2010 Nationals-Ohio State HMMM



Not Good





What drills do you do?

