Technology has, without a doubt, enhanced the sport of swimming. From the spectators' experience to athletes' advanced training techniques to the amount of information available to coaches, swimming has become a science. The technological advances have similarly transformed officiating through the availability of more accurate information. Underwater cameras have been the talk of the town but there is another advancement that is crucial in officiating relays: the RJP - Relay Judging Platform.

The RJP marks the moment in time when a swimmer leaves the platform to start a relay leg in comparison to the moment the incoming swimmer touches the wall to finish a relay leg. A negative differential would indicate an early takeoff as the swimmer on the RJP left the blocks before the income swimmer finished. Having this information in addition to the officials' observance greatly improves the accuracy of officiating the relay exchanges.

The different manufacturers of RJPs use slightly different detection technologies to provide data to the timing system. The importance of knowing the manufacturer of the RJP being used is due to the difference in how the data is displayed in the timing system console. Each system works on a similar principle which considers a timing differential between the RJP and the touch pad but there are slight differences which affect the protocol for officiating.

So, the question is, when and how do you consider the RJP data to determine whether a relay takeoff is either safe or early? Officials' observations remain an important part of the decision to be used in conjunction with the RJP as a safeguard for the technology. A perfect exchange would be a differential of 0.00, but a window is built into the decision which differs depending on manufacturer. Provided below are two tables to be used as a guide in how to judge the takeoffs. The "Displayed Timing Data" is what the timing console operator will see.

The "How to Judge the Relay Exchange" details how to interpret the console readout and how to combine it with what was seen on deck by the official. Even though the data is displayed differently in each system, the result (safe or early takeoff) is exactly the same.

The end goal is to create a fair and equal playfield for all athletes while taking advantage of technology to minimize errors in officiating. As always, the benefit of the doubt goes to the swimmer!!

Omega

Displayed Timing Data	How to Judge the Relay Exchange
-0.13 or greater negative	Both human judges must mark a takeoff violation on their ballots, indicating possible out of range reading or blank reading on console. Team is disqualified.
-0.12 to -0.04	At least one human judge must mark a takeoff violation on the ballot for a team to be disqualified.
-0.03 to +0.06	Team cannot be disqualified regardless of human judging.
+0.07 or greater positive	Both human judges must mark a takeoff violation on their ballots, indicating possible out of range reading or blank reading on console. Team is disqualified.

Colorado/Daktronics

Displayed Timing Data	How to Judge the Relay Exchange
-0.10 or greater negative	Both human judges must mark a takeoff violation on their ballots, indicating possible out of range reading or blank reading on console. Team is disqualified.
-0.09 to -0.01	At least one human judge must mark a takeoff violation on the ballot for a team to be disqualified.
0.00 to +0.09	Team cannot be disqualified regardless of human judging.
+0.10 or greater positive	Both human judges must mark a takeoff violation on their ballots, indicating possible out of range reading or blank reading on console. Team is disqualified.

