Technology to Take Racing into the Future - GPS by Equibase -

David Siegel
President, TrackMaster an Equibase Company

2018 Global Symposium on Racing
Single GPS System Economically Addresses Four Key Racing Needs And Data Enrichment

- Charting
- Timing
- Graphics
- Workouts
1 - Using GPS For Chart Creation
Results in Deeper & More Accurate Information

• GPS more accurate than the human eye
• Positions can be recorded at any point
• Deeper Data: distance traveled, stride length

---

<table>
<thead>
<tr>
<th>Pgm</th>
<th>Horse Name (Jockey)</th>
<th>Wgt M/E</th>
<th>PP</th>
<th>Start</th>
<th>1/4</th>
<th>1/2</th>
<th>Str</th>
<th>Fin</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Maiden Beauty (Rosario, Joel)</td>
<td>118 L</td>
<td>3</td>
<td>6</td>
<td>6(\frac{1}{2})</td>
<td>5(^{2})</td>
<td>3(^{1})</td>
<td>1(^{3\frac{1}{4}})</td>
<td>22.80</td>
</tr>
<tr>
<td>8</td>
<td>Tossup (Bravo, Joe)</td>
<td>117 L</td>
<td>7</td>
<td>7</td>
<td>7(\frac{1}{2})</td>
<td>3(^{1})</td>
<td>2(^{1\frac{1}{2}})</td>
<td>2(^{1\frac{1}{2}})</td>
<td>4.70</td>
</tr>
<tr>
<td>1</td>
<td>Midnitesalright (Franco, Manuel)</td>
<td>117 Lb</td>
<td>1</td>
<td>3</td>
<td>2(^{1})</td>
<td>2(^{1\frac{1}{2}})</td>
<td>2(^{1\frac{1}{2}})</td>
<td>3(^{3\frac{1}{2}})</td>
<td>4.30</td>
</tr>
<tr>
<td>7</td>
<td>She's Trouble (Ortiz, Jr., Irad)</td>
<td>117 L</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>7(^{3\frac{1}{2}})</td>
<td>5(^{1\frac{1}{2}})</td>
<td>6(^{1\frac{1}{2}})</td>
<td>14.90</td>
</tr>
<tr>
<td>2</td>
<td>Icy Lady (Castellano, Javier)</td>
<td>121 L</td>
<td>2</td>
<td>4</td>
<td>5(^{1\frac{1}{2}})</td>
<td>4(^{1\frac{1}{2}})</td>
<td>6(^{1\frac{1}{2}})</td>
<td>7(^{3\frac{1}{2}})</td>
<td>15.90</td>
</tr>
<tr>
<td>5</td>
<td>Native Dawn (Ortiz, Jose)</td>
<td>121 L</td>
<td>4</td>
<td>1</td>
<td>1(^{1\frac{1}{2}})</td>
<td>3(^{1})</td>
<td>6(^{\text{Head}})</td>
<td>8(^{3\frac{1}{2}})</td>
<td>4.00</td>
</tr>
<tr>
<td>6</td>
<td>Princess Pinky (Velazquez, John)</td>
<td>117 L</td>
<td>5</td>
<td>5</td>
<td>3(^{1})</td>
<td>1(^{\text{Head}})</td>
<td>8(^{\text{Head}})</td>
<td>8(^{\text{Head}})</td>
<td>4.00</td>
</tr>
<tr>
<td>9</td>
<td>Positively Jean (Carmouche, Kendrick)</td>
<td>121 L</td>
<td>8</td>
<td>2</td>
<td>4(^{1\frac{1}{2}})</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4.00</td>
</tr>
</tbody>
</table>
2 - Unlike Existing Timing Systems GPS Has No Infrastructure to Maintain & Records Time Continuously

- Tracks with Turf Courses and multiple lanes could have over 100 Timing Eyes
- Track configuration changes requires minimal effort to deal with
- Allows for infinite timing “Points of Call”
3 – GPS System Has the Capability to Drive Real Time & Post-Race Graphics

- Complete Running Order Reduces Reliance on Placing Judges
- More Complex 2-D Depiction of Positions Expected in Near Future
- Post Race Analysis Can Enhance Broadcasts
4 – Workouts tracked by GPS: better accuracy, data depth & integrity

- Today's data lacks public confidence
- Ability to have internal and accurate final times
- Additional information available to public or trainer
- Impressive software display already in place
- Major challenge – logistics
- Keeneland beta test and micro-chipping
Equibase is the Official Timing Company At Major Tracks
Two Additional Tracks
October 2018 and January 2019

HOLLYWOOD Gaming
MAHONING VALLEY RACE COURSE

HOLLYWOOD Casino
AT PENN NATIONAL RACE COURSE
Expansion and Development

• More installations planned for 2019
• Developing graphics in-house
  - Currently, data to drive graphics available to tracks’ video providers
  - Development will allow Equibase to serve customers enhanced graphics directly
• Enriched data to be leveraged once critical mass is reached
• Workout development continuing (micro-chips and logistics)