

# 2021 Men's 60m Hurdles World Indoor Record Season

Grant Holloway (USA) - 7.29

## Hurdle Touchdown Times



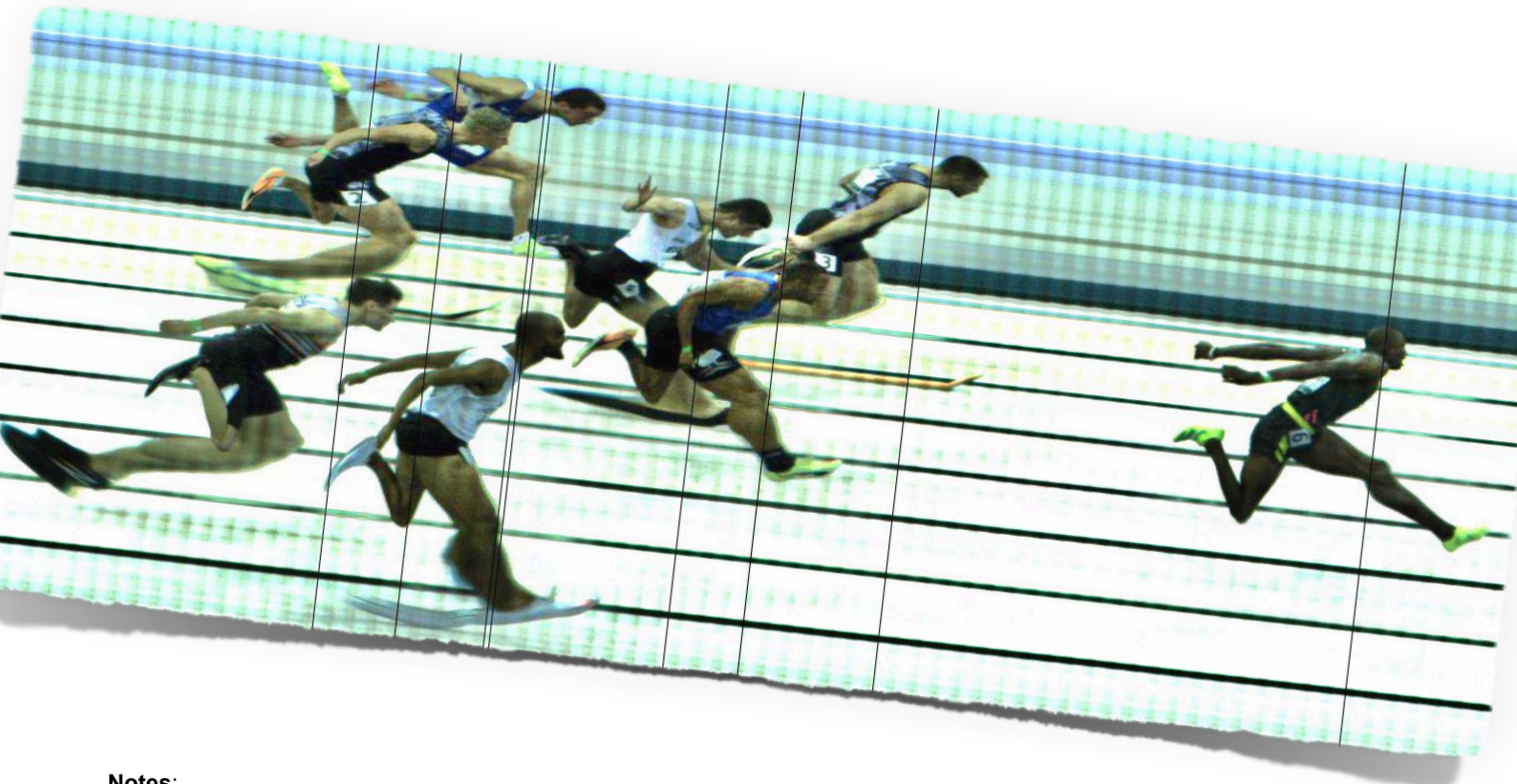
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Todd Henson

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## Notes:

- The times listed as TV Analysis are taken from [youtube.com](https://www.youtube.com) videos and generally coming from Television broadcasts. These are not always the best angles or coverage for getting times. They are often trying to tell a story by focusing on one athlete, and sometimes while shifting camera angles an extra frame can get added or removed.
- Where times are taken from the first movement, instead of the gun, there is at least a  $\pm 0.12$  second difference/error. This will show up from the start to the first hurdle and then from hurdle 10 to the finish. The between hurdle intervals should be fairly consistent, but there is still the usual  $\pm 0.03$  second.
  - *You can definitely see this in the both the Madrid and Liévin finals when comparing my TV analysis with the Video analysis of Coach Vazel. Our rhythmic unit times between hurdles were very close, but his times to the first hurdle were more accurate (slower) and thus his run-in times were more accurate (faster) as well.*
- Data errors, missing data, spelling mistakes, anything that needs correction - please let me know. As always, I try to put together the most complete and accurate report possible.
- I have done the best I could, I hope people find it useful or at least interesting.

**2021 Men's 60m Hurdles World Record Season - Grant Holloway (USA) (1997)****Villa de Madrid (Madrid, ESP)**

<b>FINAL</b>	date	24-Feb-21	Vazel (2021) - <a href="https://twitter.com/pjvazel/status/1364677209525485569">https://twitter.com/pjvazel/status/1364677209525485569</a>								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.48	3.47	4.46	5.45	6.44			7.29	6 / 1	
	reaction time	interval	7 steps	0.99	0.99	0.99	0.99	0.85	WR		2.97
		velocity	5.53	9.23	9.23	9.23	9.23	11.44	8.23		9.23

**Heat 1 (TV Analysis)**

	date	24-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.36	3.36	4.34	5.34	6.33			7.32	5 / 1	
	reaction time	0.164	interval	7 steps	1.00	0.98	1.00	0.99	0.99	=AR	
		velocity	5.81	9.14	9.33	9.14	9.23	9.82	8.20		

**Copernicus Cup (Toruń, POL) (TV Analysis)**

<b>FINAL</b>	date	17-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.44	3.45	4.43	5.42	6.45			7.38	4 / 1	
	reaction time	0.122	interval	7 steps	1.01	0.98	0.99	1.03	0.93		2.98
		velocity	5.62	9.05	9.33	9.23	8.87	10.45	8.13		9.20

**Heat 1**

	date	17-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record									
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>	
Holloway, Grant (USA) (1997)	time								7.43	4 / 1		
	reaction time	0.199	No Information Available									
		velocity								8.08		

**Meeting Elite en Salle de L'Eure (Val-de-Reuil, FRA) (TV Analysis)**

<b>FINAL</b>	date	14-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.40	3.40	4.40	5.42	6.42			7.41	5 / 1	
	reaction time	0.161	interval	7 steps	1.00	1.00	1.02	1.00	0.99		3.02
		velocity	5.72	9.14	9.14	8.96	9.14	9.82	8.10		9.08

**Heat 1**

	date	14-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.42	3.42	4.42	5.42	6.42			7.47	4 / 1	
	reaction time	0.142	interval	7 steps	1.00	1.00	1.00	1.00	1.05		3.00
		velocity	5.67	9.14	9.14	9.14	9.14	9.26	8.03		9.14

**Meeting Hauts-de-France Pas-de-Calais (Liévin, FRA)**

<b>FINAL</b>	date	09-Feb-21	Vazel (2021) - <a href="https://twitter.com/pjvazel/status/1359286403834724356">https://twitter.com/pjvazel/status/1359286403834724356</a>								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.50	3.49	4.48	5.47	6.45			7.32	5 / 1	
	reaction time	0.150	interval	7 steps	0.99	0.99	0.99	0.98	0.87	AR	2.97
		velocity	5.49	9.23	9.23	9.23	9.33	11.17	8.20		9.23

**Heat 2 (TV Analysis)**

	date	09-Feb-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.38	3.38	4.38	5.36	6.34			7.38	4 / 1	
	reaction time	0.194	interval	7 steps	1.00	1.00	0.98	0.98	1.04		
		velocity	5.76	9.14	9.14	9.33	9.33	9.35	8.13		

**American Track League 1 (Fayetteville, AR) (TV Analysis)**

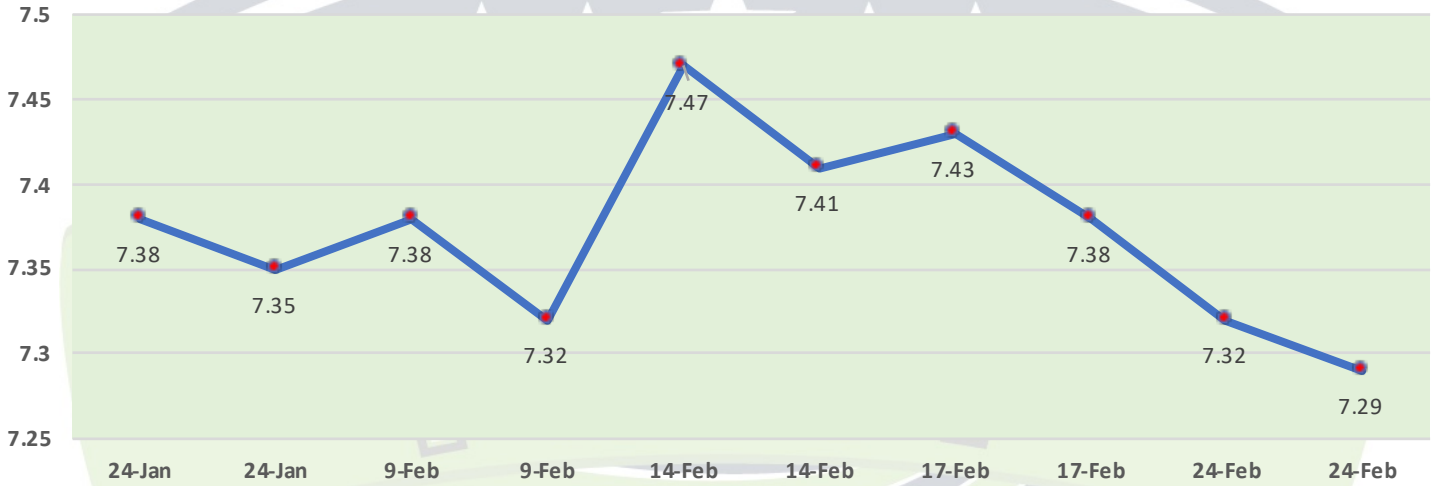
<b>FINAL</b>	date	24-Jan-21	Henson (2021) - Athlete First: 2021 Grant Holloway world indoor record								
			<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
Holloway, Grant (USA) (1997)	time	2.42	3.43	4.43	5.42	6.39			7.35	4 / 1	
	reaction time	0.174	interval	7 steps	1.01	1.00	0.99	0.97	0.96	=AR =PB	3.00
		velocity	5.67	9.05	9.14	9.23	9.42	10.13	8.16		9.14



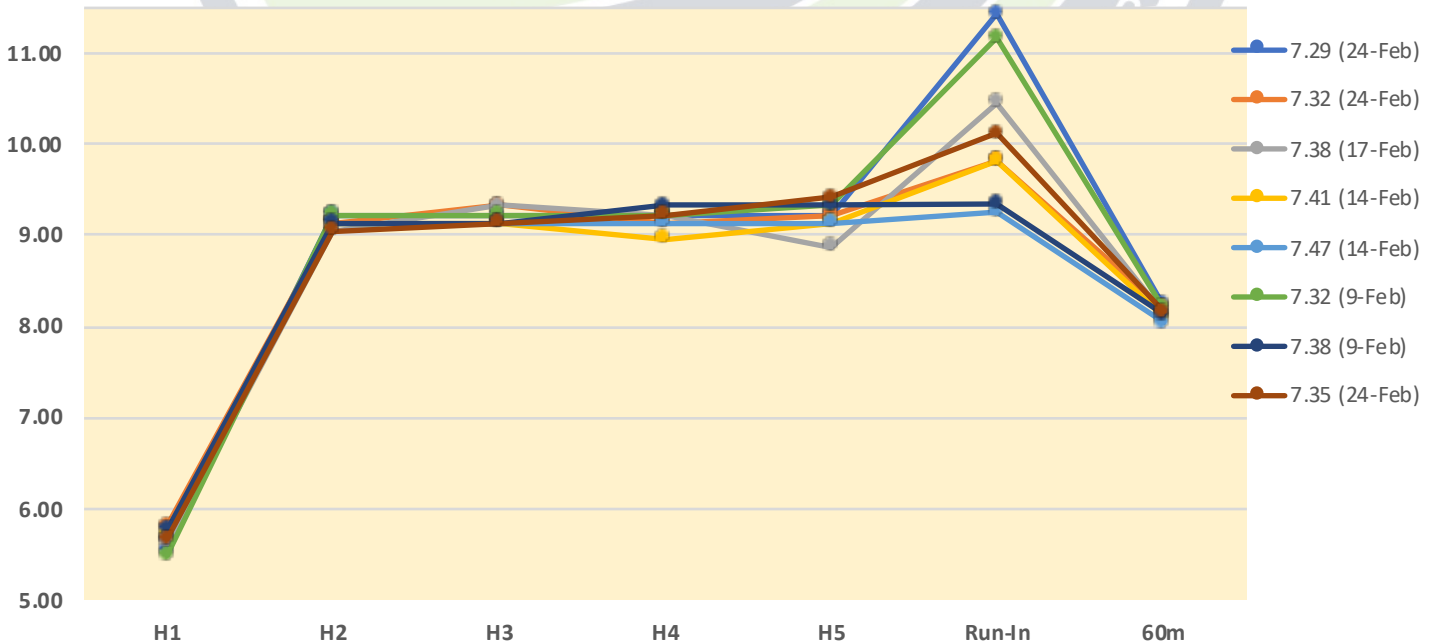
**Heat 2**      date 24-Jan-21

		<b>H1</b>	<b>H2</b>	<b>H3</b>	<b>H4</b>	<b>H5</b>	<b>Run-In</b>	<b>60m</b>	<b>Lane / Place</b>	<b>H1-H4</b>
<b>Holloway, Grant (USA) (1997)</b>	time							7.38	6 / 1	
reaction time	0.189									
interval										No Information Available
velocity								8.13		

**Grant Holloway 2021 Indoor**



**Hurdle Rhythmic Units - Top 10 Times (average 7.373)**



## Biomechanical Analysis

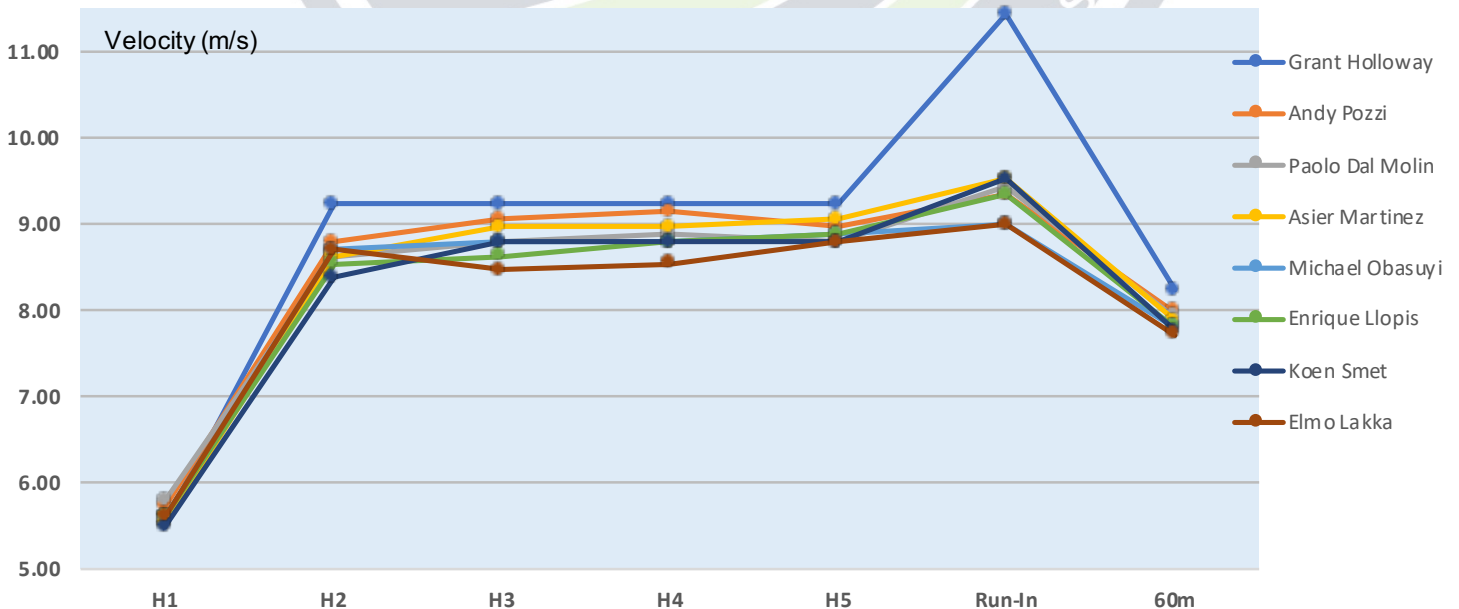
Villa de Madrid (Madrid, ESP)

Men's 60m Hurdles

Date: 2021.02.24

FINAL

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place	
<b>Holloway, Grant (USA) (1997)</b>	time	2.48	3.47	4.46	5.45	6.44		7.29	6 / 1	
	reaction time	interval	7 steps	0.99	0.99	0.99	0.99	0.85	WR	Vazel (2021)
	velocity	5.53	9.23	9.23	9.23	9.23	11.44	8.23		
<b>Pozzi, Andy (GBR) (1992)</b>	time	2.40	3.44	4.45	5.45	6.47		7.51	3 / 2	
	reaction time	interval	7 steps	1.04	1.01	1.00	1.02	1.04		
	velocity	5.72	8.79	9.05	9.14	8.96	9.35	7.99		
<b>Dal Molin, Paolo (ITA) (1987)</b>	time	2.37	3.43	4.47	5.50	6.54		7.57	5 / 3	
	reaction time	interval	7 steps	1.06	1.04	1.03	1.04	1.03		
	velocity	5.79	8.62	8.79	8.87	8.79	9.44	7.93		
<b>Martinez, Asier (ESP) (2000)</b>	time	2.48	3.54	4.56	5.58	6.59		7.61	4 / 4	
	reaction time	interval	7 steps	1.06	1.02	1.02	1.01	1.02	=PB	
	velocity	5.53	8.62	8.96	8.96	9.05	9.53	7.88		
<b>Obasuyi, Michael (BEL) (1999)</b>	time	2.45	3.50	4.54	5.58	6.61		7.69	8 / 5	
	reaction time	interval	7 steps	1.05	1.04	1.04	1.03	1.08		
	velocity	5.60	8.70	8.79	8.79	8.87	9.00	7.80		
<b>Llopis, Enrique (ESP) (2000)</b>	time	2.45	3.52	4.58	5.62	6.65		7.69	1 / 6	
	reaction time	interval	7 steps	1.07	1.06	1.04	1.03	1.04	PB	
	velocity	5.60	8.54	8.62	8.79	8.87	9.35	7.80		
<b>Smet, Koen (BEL) (1992)</b>	time	2.50	3.59	4.63	5.67	6.71		7.73	2 / 7	
	reaction time	interval		1.09	1.04	1.04	1.04	1.02		
	velocity	5.49	8.39	8.79	8.79	8.79	9.53	7.76		
<b>Lakka, Elmo (FIN) (1993)</b>	time	2.45	3.50	4.58	5.65	6.69		7.77	7 / 8	
	reaction time	interval	7 steps	1.05	1.08	1.07	1.04	1.08		
	velocity	5.60	8.70	8.46	8.54	8.79	9.00	7.72		



Holloway

Source: Vazel, P.J. (2021.02.25) <https://twitter.com/pjvazel/status/1364677209525485569>

Place 2-8 (TV Analysis)

Evaluated with: ObjectusVideo

Quality &amp; Frame Rate: 1920 x 1080 @ 60fps

Timing From: Gun Flash

Source: <https://www.youtube.com/watch?v=E8omN7pyrA>

## Biomechanical Analysis

### Villa de Madrid (Madrid, ESP) (TV Analysis)

#### Men's 60m Hurdles

Date: 2021.02.24

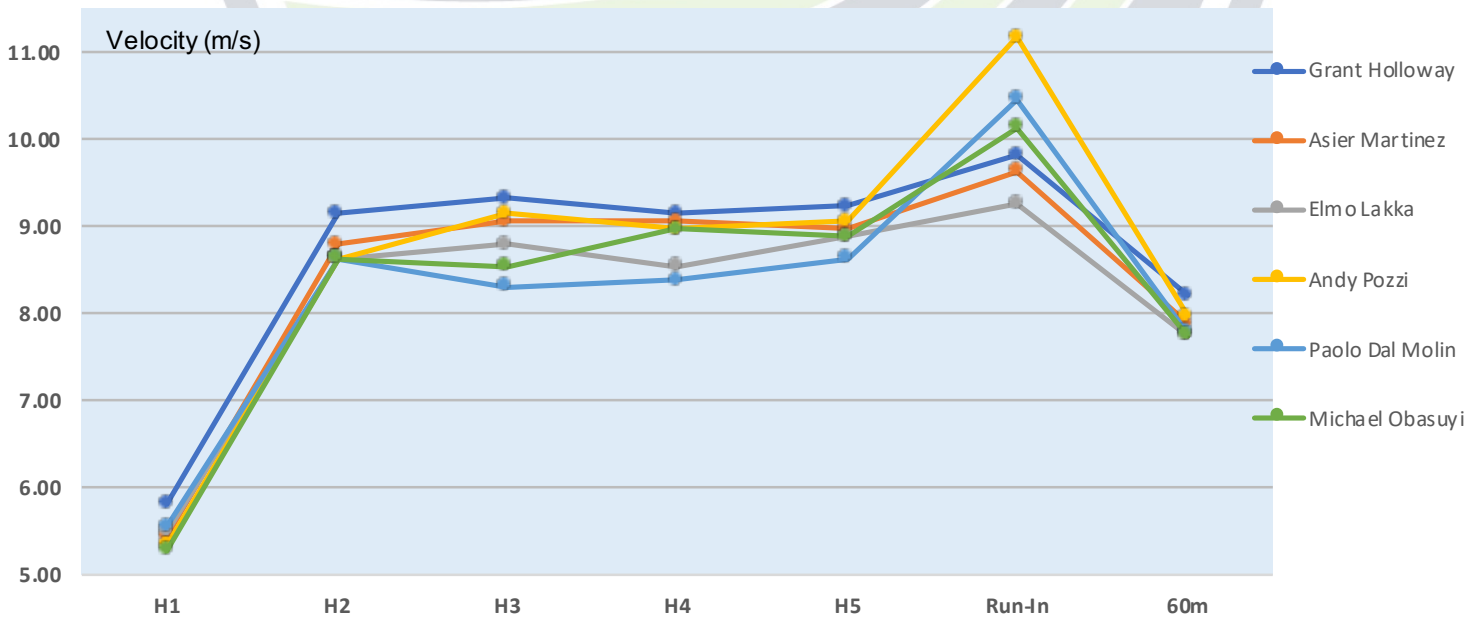
Heat 1

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Holloway, Grant (USA) (1997)</b>	time	2.36	3.36	4.34	5.34	6.33		<b>7.32</b>	5 / 1
	reaction time	0.164	interval	<b>7 steps</b>	1.00	0.98	1.00	0.99	<b>=AR</b>
	velocity	5.81	9.14	9.33	9.14	9.23	9.82	8.20	
<b>Martinez, Asier (ESP) (2000)</b>	time	2.52	3.56	4.57	5.58	6.60		<b>7.61</b>	4 / 2
	reaction time	0.131	interval	<b>7 steps</b>	1.04	1.01	1.01	1.02	<b>PB</b>
	velocity	5.44	8.79	9.05	9.05	8.96	9.62	7.88	
<b>Lakka, Elmo (FIN) (1993)</b>	time	2.50	3.56	4.60	5.67	6.70		<b>7.75</b>	6 / 3
	reaction time	0.142	interval	<b>7 steps</b>	1.06	1.04	1.07	1.03	1.05
	velocity	5.49	8.62	8.79	8.54	8.87	9.26	7.74	

Date: 2021.02.24

Heat 2

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Pozzi, Andy (GBR) (1992)</b>	time	2.57	3.63	4.63	5.65	6.66		<b>7.53</b>	4 / 1
	reaction time	0.132	interval	<b>7 steps</b>	1.06	1.00	1.02	1.01	0.87
	velocity	5.34	8.62	9.14	8.96	9.05	11.17	7.97	
<b>Dal Molin, Paolo (ITA) (1987)</b>	time	2.47	3.53	4.63	5.72	6.78		<b>7.71</b>	5 / 2
	reaction time	0.134	interval	<b>7 steps</b>	1.06	1.10	1.09	1.06	0.93
	velocity	5.55	8.62	8.31	8.39	8.62	10.45	7.78	
<b>Obasuyi, Michael (BEL) (1999)</b>	time	2.60	3.66	4.73	5.75	6.78		<b>7.74</b>	3 / 3
	reaction time	0.172	interval	<b>7 steps</b>	1.06	1.07	1.02	1.03	0.96
	velocity	5.28	8.62	8.54	8.96	8.87	10.13	7.75	



Evaluated with: ObjectusVideo

Quality &amp; Frame Rate: 1920 x 1080 @ 30fps

Timing From: First Movement

Source: [https://www.youtube.com/watch?v=XDcHenx9b\\_I&t=56s](https://www.youtube.com/watch?v=XDcHenx9b_I&t=56s)

Biomechanical Analysis

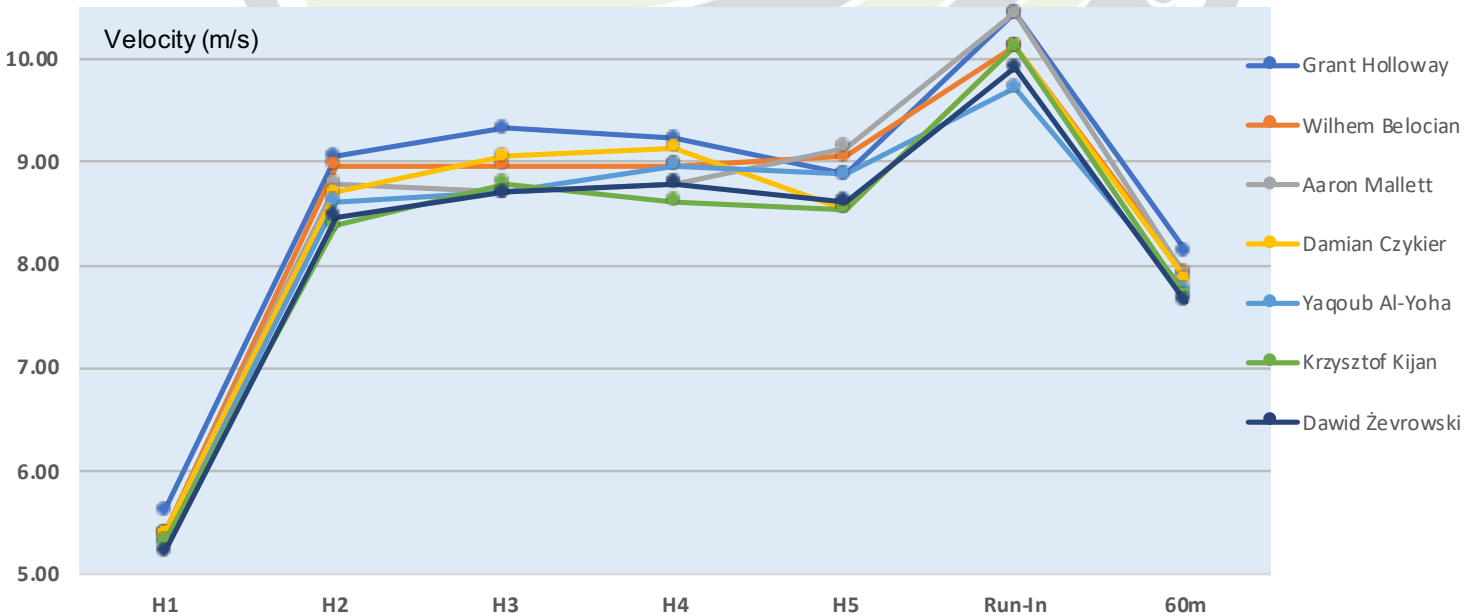
Copernicus Cup (Toruń, POL) (TV Analysis)

Men's 60m Hurdles

Date: 2021.02.17

FINAL

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Holloway, Grant (USA) (1997)</b>	time	2.44	3.45	4.43	5.42	6.45		<b>7.38</b>	4 / 1
	reaction time	0.122							
	interval velocity	<b>7 steps</b>	1.01	0.98	0.99	1.03	0.93		
	velocity	5.62	9.05	9.33	9.23	8.87	10.45	8.13	
<b>Belocian, Wilhem (FRA) (1995)</b>	time	2.54	3.56	4.58	5.60	6.61		<b>7.57</b>	3 / 2
	reaction time	0.143							
	interval velocity		1.02	1.02	1.02	1.01	0.96		
	velocity	5.40	8.96	8.96	8.96	9.05	10.13	7.93	
<b>Mallett, Aaron (USA) (1994)</b>	time	2.54	3.58	4.63	5.67	6.67		<b>7.60</b>	6 / 3
	reaction time	0.170							
	interval velocity		1.04	1.05	1.04	1.00	0.93		
	velocity	5.40	8.79	8.70	8.79	9.14	10.45	7.89	
<b>Czykier, Damian (POL) (1992)</b>	time	2.54	3.59	4.60	5.60	6.67		<b>7.63</b>	7 / 4
	reaction time	0.149							
	interval velocity	<b>7 steps</b>	1.05	1.01	1.00	1.07	0.96		
	velocity	5.40	8.70	9.05	9.14	8.54	10.13	7.86	
<b>Al-Yoha, Yaqoub (KUW) (1993)</b>	time	2.59	3.65	4.70	5.72	6.75		<b>7.75</b>	5 / 5
	reaction time	0.166							
	interval velocity		1.06	1.05	1.02	1.03	1.00		
	velocity	5.30	8.62	8.70	8.96	8.87	9.72	7.74	
<b>Kiljan, Krzysztof (POL) (1999)</b>	time	2.58	3.67	4.71	5.77	6.84		<b>7.80</b>	2 / 6
	reaction time	0.155							
	interval velocity	<b>7 steps</b>	1.09	1.04	1.06	1.07	0.96		
	velocity	5.32	8.39	8.79	8.62	8.54	10.13	7.69	
<b>Żevrowski, Dawid (POL) (1997)</b>	time	2.63	3.71	4.76	5.80	6.86		<b>7.84</b>	1 / 7
	reaction time	0.167							
	interval velocity		1.08	1.05	1.04	1.06	0.98		
	velocity	5.22	8.46	8.70	8.79	8.62	9.92	7.65	



Evaluated with: ObjectusVideo

Quality & Frame Rate: 1920 x 1080 @ 60fps

Timing From: First Movement

Source: <https://www.youtube.com/watch?v=jqs74k9zUc4>

## Biomechanical Analysis

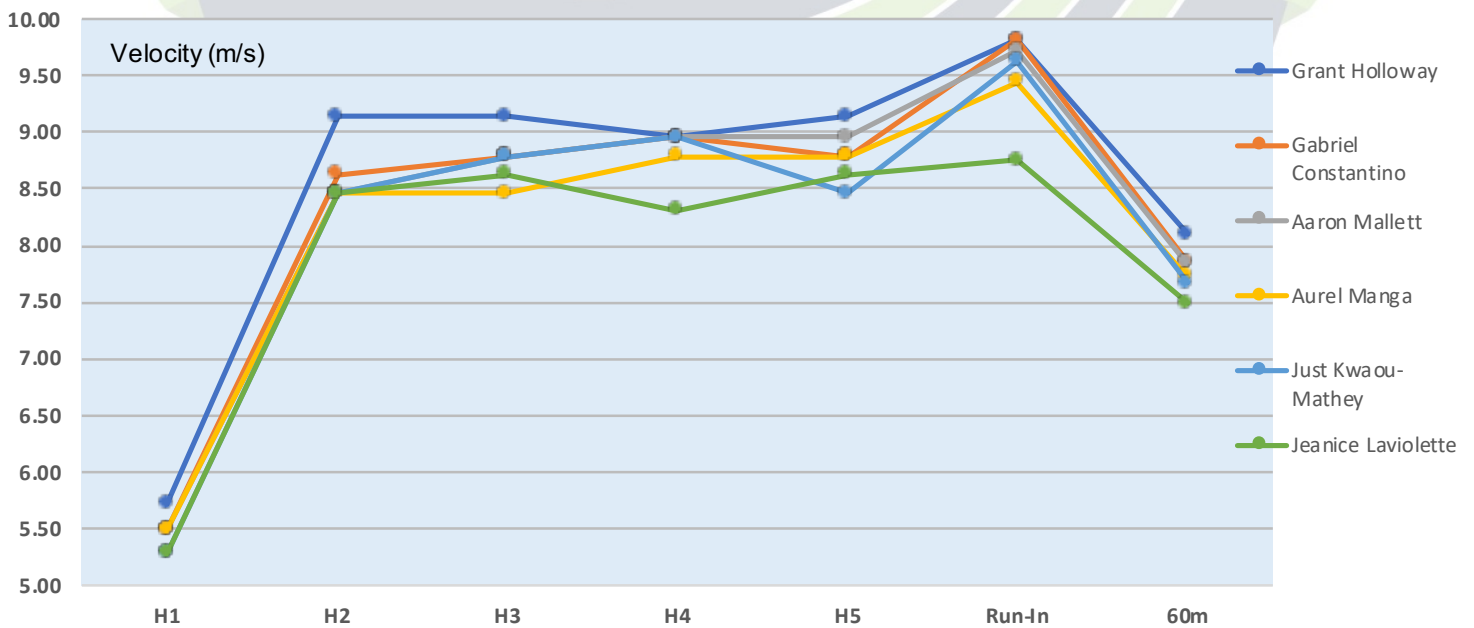
### Meeting Elite en Salle de L'Eure (Val-de-Reuil, FRA) (TV Analysis)

#### Men's 60m Hurdles

Date: 2021.02.14

FINAL

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Holloway, Grant (USA) (1997)</b>	time	2.40	3.40	4.40	5.42	6.42		<b>7.41</b>	5 / 1
	reaction time	0.161	interval	<b>7 steps</b>	1.00	1.00	1.02	1.00	0.99
	velocity	5.72	9.14	9.14	8.96	9.14	9.82	8.10	
<b>Constantino, Gabriel (BRA) (2000)</b>	time	2.50	3.56	4.60	5.62	6.66		<b>7.65</b>	4 / 2
	reaction time	0.166	interval	<b>7 steps</b>	1.06	1.04	1.02	1.04	0.99
	velocity	5.49	8.62	8.79	8.96	8.79	9.82	7.84	
<b>Mallett, Aaron (USA) (1995)</b>	time	2.50	3.58	4.62	5.64	6.66		<b>7.66</b>	3 / 3
	reaction time	0.137	interval		1.08	1.04	1.02	1.02	1.00
	velocity	5.49	8.46	8.79	8.96	8.96	9.72	7.83	
<b>Manga, Aurel (FRA) (1992)</b>	time	2.50	3.58	4.66	5.70	6.74		<b>7.77</b>	6 / 4
	reaction time	0.160	interval	<b>7 steps</b>	1.08	1.08	1.04	1.04	1.03
	velocity	5.49	8.46	8.46	8.79	8.79	9.44	7.72	
<b>Kwaou-Mathey, Just (FRA) (1999)</b>	time	2.60	3.68	4.72	5.74	6.82		<b>7.83</b>	1 / 5
	reaction time	0.168	interval	<b>7 steps</b>	1.08	1.04	1.02	1.08	1.01
	velocity	5.28	8.46	8.79	8.96	8.46	9.62	7.66	
<b>Laviolette, Jeanice (FRA) (2000)</b>	time	2.60	3.68	4.74	5.84	6.90		<b>8.01</b>	2 / 6
	reaction time	0.158	interval		1.08	1.06	1.10	1.06	1.11
	velocity	5.28	8.46	8.62	8.31	8.62	8.76	7.49	



Evaluated with: ObjectusVideo

Quality & Frame Rate: 1920 x 1080 @ 25fps

Timing From: First Movement

Source: [https://www.youtube.com/watch?v=w\\_jT7ruZIXA](https://www.youtube.com/watch?v=w_jT7ruZIXA)



## Biomechanical Analysis

### Meeting Elite en Salle de L'Eure (Val-de-Reuil, FRA) (TV Analysis)

#### Men's 60m Hurdles

Date: 2021.02.14

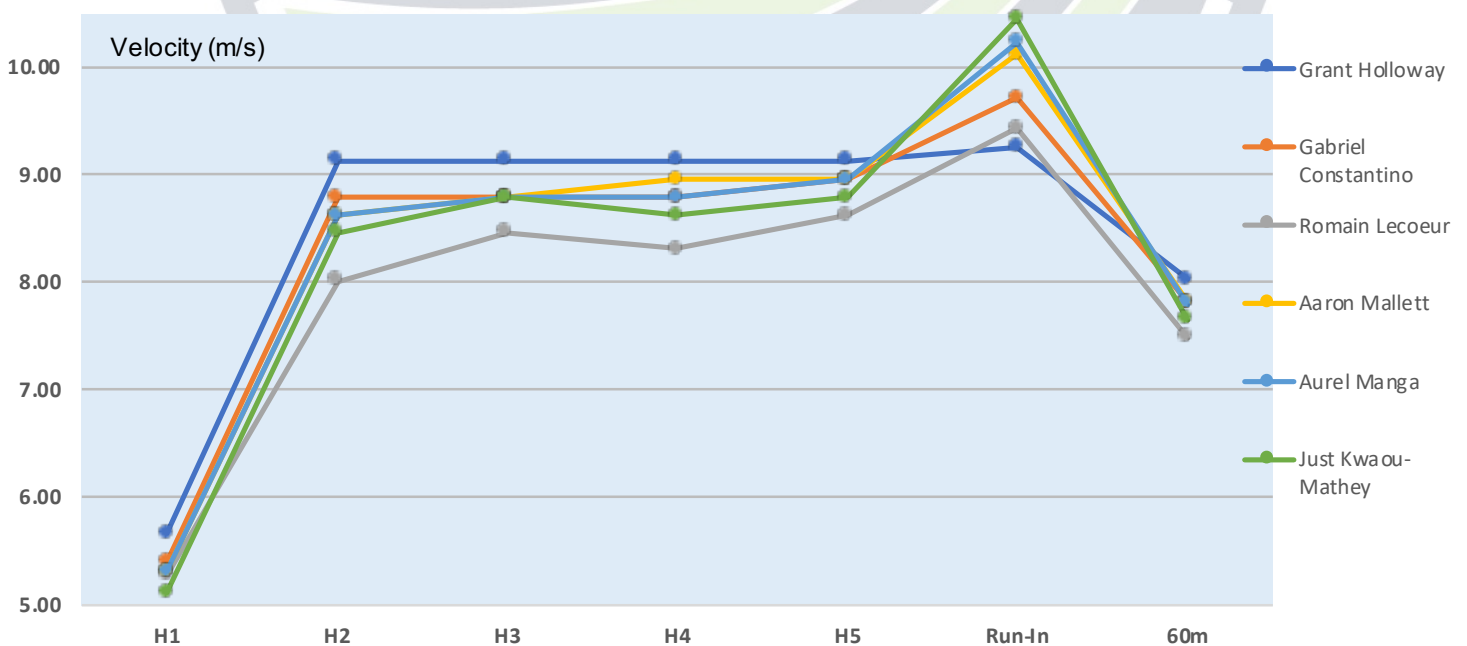
Heat 1

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place	
<b>Holloway, Grant (USA) (1997)</b>	time	2.42	3.42	4.42	5.42	6.42		7.47	4 / 1	
	reaction time	0.142	interval	7 steps	1.00	1.00	1.00	1.05		
	velocity	5.67	9.14	9.14	9.14	9.14	9.14	9.26	8.03	
<b>Constantino, Gabriel (BRA) (2000)</b>	time	2.54	3.58	4.62	5.66	6.68		7.68	5 / 2	
	reaction time	0.185	interval	7 steps	1.04	1.04	1.04	1.00		
	velocity	5.40	8.79	8.79	8.79	8.96	9.72	7.81		
<b>Lecoeur, Romain (FRA) (1997)</b>	time	2.60	3.74	4.82	5.92	6.98		8.01	2 / 3	
	reaction time	0.116	interval	7 steps	1.14	1.08	1.10	1.06	1.03	
	velocity	5.28	8.02	8.46	8.31	8.62	9.44	7.49		

Date: 2021.02.14

Heat 2

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place	
<b>Mallett, Aaron (USA) (1995)</b>	time	2.58	3.64	4.68	5.70	6.72		7.68	3 / 1	
	reaction time	0.166	interval	1.06	1.04	1.02	1.02	0.96		
	velocity	5.32	8.62	8.79	8.96	8.96	10.13	7.81		
<b>Manga, Aurel (FRA) (1992)</b>	time	2.58	3.64	4.68	5.72	6.74		7.69	4 / 2	
	reaction time	0.176	interval	7 steps	1.06	1.04	1.04	0.95		
	velocity	5.32	8.62	8.79	8.79	8.96	10.23	7.80		
<b>Kwaou-Mathey, Just (FRA) (1999)</b>	time	2.68	3.76	4.80	5.86	6.90		7.83	2 / 3	
	reaction time	0.158	interval	7 steps	1.08	1.04	1.06	1.04	0.93	
	velocity	5.12	8.46	8.79	8.62	8.79	10.45	7.66		



Heat 1  
 Evaluated with: ObjectusVideo  
 Quality & Frame Rate: 1920 x 1080 @ 25fps  
 Timing From: First Movement  
 Source: [https://www.youtube.com/watch?v=w\\_iT7ruZIXA](https://www.youtube.com/watch?v=w_iT7ruZIXA)

Heat 2  
 Evaluated with: ObjectusVideo  
 Quality & Frame Rate: 1920 x 1080 @ 25fps  
 Timing From: Gun Flash  
 Source: [https://www.youtube.com/watch?v=w\\_iT7ruZIXA](https://www.youtube.com/watch?v=w_iT7ruZIXA)

## Biomechanical Analysis

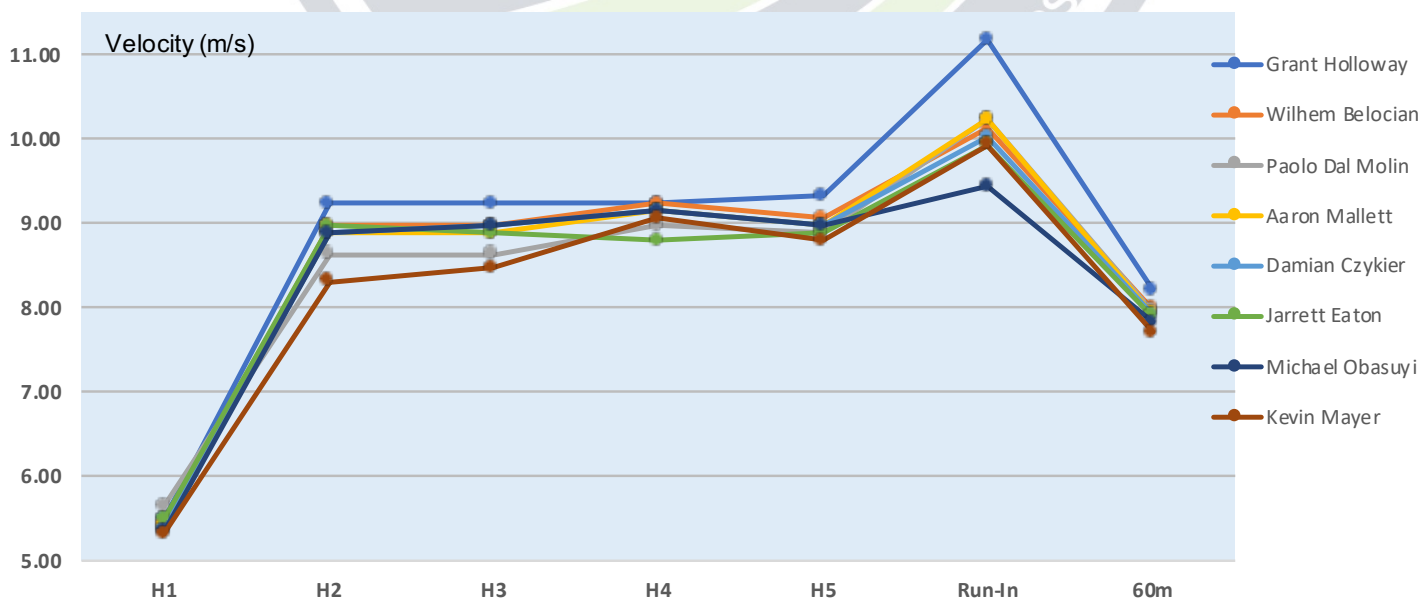
### Meeting Hauts-de-France Pas-de-Calais (Liévin, FRA)

#### Men's 60m Hurdles

Date: 2021.02.09

FINAL

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Holloway, Grant (USA) (1997)</b>	time	2.50	3.49	4.48	5.47	6.45		<b>7.32</b>	5 / 1
	reaction time	0.150						<b>AR</b>	Vazel (2021)
	interval	<b>7 steps</b>	0.99	0.99	0.99	0.98	0.87	8.20	
	velocity	5.49	9.23	9.23	9.23	9.33	11.17		
<b>Belocian, Wilhem (FRA) (1995)</b>	time	2.52	3.54	4.56	5.55	6.56		<b>7.52</b>	4 / 2
	reaction time	0.160					0.96		
	interval		1.02	1.02	0.99	1.01			
	velocity	5.44	8.96	8.96	9.23	9.05	10.13	7.98	
<b>Dal Molin, Paolo (ITA) (1987)</b>	time	2.43	3.49	4.55	5.57	6.60		<b>7.55</b>	2 / 3
	reaction time	0.126					0.95		
	interval	<b>7 steps</b>	1.06	1.06	1.02	1.03			
	velocity	5.65	8.62	8.62	8.96	8.87	10.23	7.95	
<b>Mallett, Aaron (USA) (1994)</b>	time	2.54	3.57	4.60	5.60	6.62		<b>7.57</b>	7 / 4
	reaction time	0.150					0.95		
	interval		1.03	1.03	1.00	1.02			
	velocity	5.40	8.87	8.87	9.14	8.96	10.23	7.93	
<b>Czykier, Damian (POL) (1992)</b>	time	2.55	3.58	4.60	5.60	6.62		<b>7.59</b>	3 / 5
	reaction time	0.161					0.97		
	interval	<b>7 steps</b>	1.03	1.02	1.00	1.02			
	velocity	5.38	8.87	8.96	9.14	8.96	10.02	7.91	
<b>Eaton, Jarrett (USA) (1989)</b>	time	2.50	3.52	4.55	5.59	6.62		<b>7.60</b>	6 / 6
	reaction time	0.140					0.98		
	interval	<b>7 steps</b>	1.02	1.03	1.04	1.03			
	velocity	5.49	8.96	8.87	8.79	8.87	9.92	7.89	
<b>Obasuyi, Michael (BEL) (1999)</b>	time	2.57	3.60	4.62	5.62	6.64		<b>7.67</b>	8 / 7
	reaction time	0.158					1.03	<b>=PB</b>	
	interval	<b>7 steps</b>	1.03	1.02	1.00	1.02			
	velocity	5.34	8.87	8.96	9.14	8.96	9.44	7.82	
<b>Mayer, Kevin (FRA) (1992)</b>	time	2.58	3.68	4.76	5.77	6.81		<b>7.79</b>	1 / 8
	reaction time	0.179					0.98		
	interval	<b>7 steps</b>	1.10	1.08	1.01	1.04			
	velocity	5.32	8.31	8.46	9.05	8.79	9.92	7.70	



#### Heat 1 - Holloway

Source: Vazel, P.J. (2021.02.10) <https://twitter.com/pjvazel/status/1359286403834724356>

#### Place 2-8 (TV Analysis)

Evaluated with: ObjectusVideo

Quality &amp; Frame Rate: 1920 x 1080 @ 60fps

Timing From: Gun Flash

Source: [https://www.youtube.com/watch?v=9xcBx1yB\\_cc&t=7s](https://www.youtube.com/watch?v=9xcBx1yB_cc&t=7s)

## Biomechanical Analysis

### Meeting Hauts-de-France Pas-de-Calais (Liévin, FRA) (TV Analysis)

#### Men's 60m Hurdles

Date: 2021.02.09

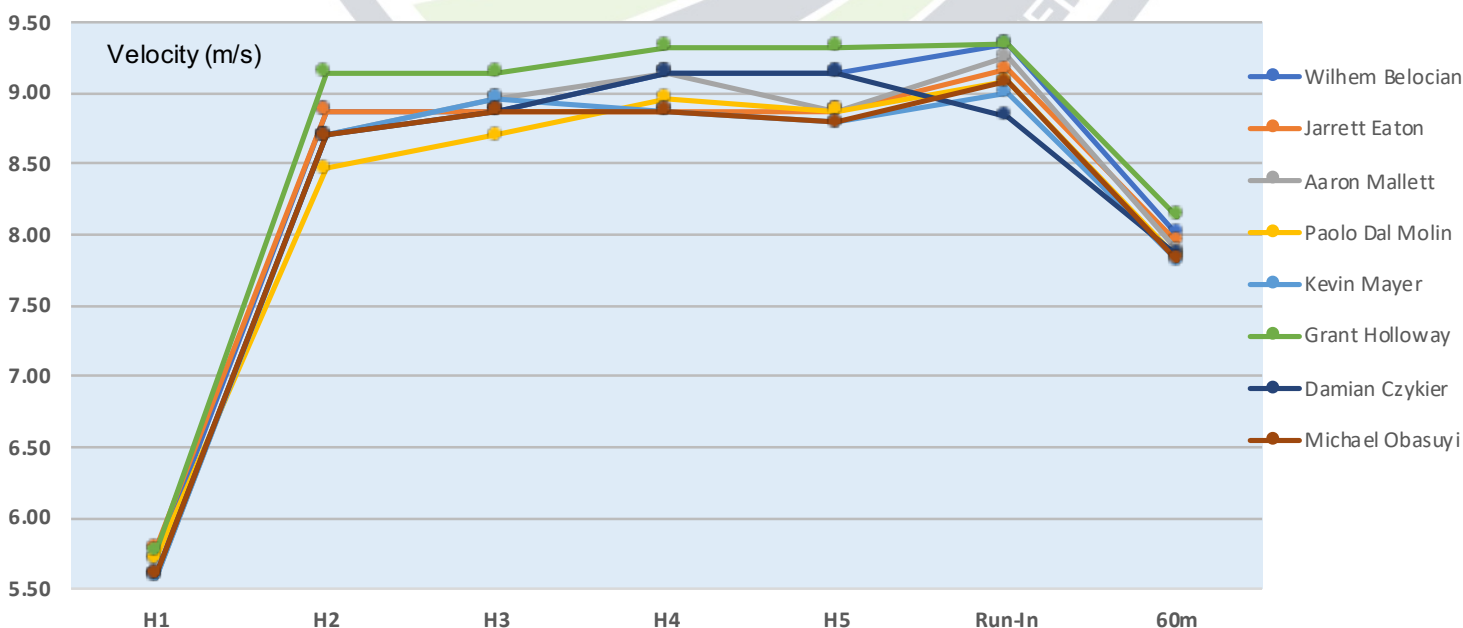
Heat 1

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Belocian, Wilhem (FRA) (1995)</b>	time	2.40	3.43	4.46	5.46	6.46		7.50	5 / 1
	reaction time	0.141					1.04		
	interval velocity	5.72	8.87	8.87	9.14	9.14	9.35	8.00	
<b>Eaton, Jarrett (USA) (1989)</b>	time	2.37	3.40	4.43	5.46	6.49		7.55	4 / 2
	reaction time	0.161					1.06		
	interval velocity	7 steps	5.79	8.87	8.87	8.87	8.87	9.17	7.95
<b>Mallett, Aaron (USA) (1994)</b>	time	2.46	3.51	4.53	5.53	6.56		7.61	3 / 3
	reaction time	0.152					1.05		
	interval velocity	5.58	8.70	8.96	9.14	8.87	9.26	7.88	
<b>Dal Molin, Paolo (ITA) (1987)</b>	time	2.40	3.48	4.53	5.55	6.58		7.65	7 / 4
	reaction time	0.134					1.07		
	interval velocity	7 steps	5.72	8.46	8.70	8.96	8.87	9.08	7.84
<b>Mayer, Kevin (FRA) (1992)</b>	time	2.46	3.51	4.53	5.56	6.60		7.68	6 / 5
	reaction time	0.174					1.08		
	interval velocity	7 steps	5.58	8.70	8.96	8.87	8.79	9.00	7.81

Date: 2021.02.09

Heat 2

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place
<b>Holloway, Grant (USA) (1997)</b>	time	2.38	3.38	4.38	5.36	6.34		7.38	4 / 1
	reaction time	0.194					1.04		
	interval velocity	7 steps	5.76	9.14	9.14	9.33	9.33	9.35	8.13
<b>Czykier, Damian (POL) (1992)</b>	time	2.45	3.50	4.53	5.53	6.53		7.63	6 / 2
	reaction time	0.155					1.10		
	interval velocity	7 steps	5.60	8.70	8.87	9.14	9.14	8.84	7.86
<b>Obasuyi, Michael (BEL) (1999)</b>	time	2.45	3.50	4.53	5.56	6.60		7.67	7 / 3
	reaction time	0.152					1.07		
	interval velocity	7 steps	5.60	8.70	8.87	8.87	8.79	9.08	7.82



Evaluated with: ObjectusVideo

Quality &amp; Frame Rate: 1920 x 1080 @ 30fps

Timing From: First Movement

Source: <https://www.youtube.com/watch?v=3nT2c28c264>

Biomechanical Analysis

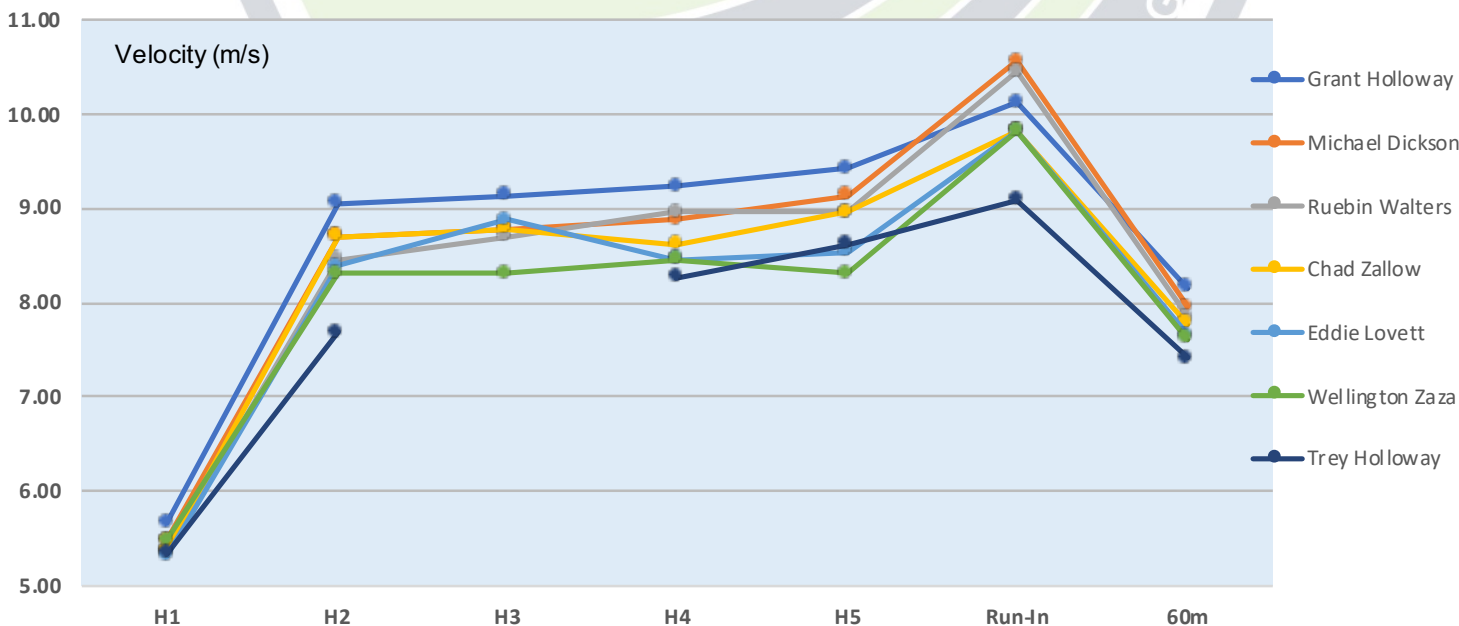
American Track League 1 (Fayetteville, AR) (TV Analysis)

Men's 60m Hurdles

Date: 2021.01.24

FINAL

		H1	H2	H3	H4	H5	Run-In	60m	Lane / Place	
<b>Holloway, Grant (USA) (1997)</b>	time	2.42	3.43	4.43	5.42	6.39		7.35	4 / 1	
	reaction time	0.174	interval	7 steps	1.01	1.00	0.99	0.97	0.96	=AR =PB
	velocity	5.67	9.05	9.14	9.23	9.42	10.13	8.16		
<b>Dickson, Michael (USA) (1997)</b>	time	2.50	3.55	4.59	5.62	6.62		7.54	3 / 2	
	reaction time	0.186	interval	7 steps	1.05	1.04	1.03	1.00	0.92	PB
	velocity	5.49	8.70	8.79	8.87	9.14	10.57	7.96		
<b>Walters, Ruebin (TTO) (1995)</b>	time	2.55	3.63	4.68	5.70	6.72		7.65	5 / 3	
	reaction time	0.142	interval		1.08	1.05	1.02	1.02	0.93	
	velocity	5.38	8.46	8.70	8.96	8.96	10.45	7.84		
<b>Zallow, Chad (USA) (1997)</b>	time	2.55	3.60	4.64	5.70	6.72		7.71	6 / 4	
	reaction time	0.189	interval		1.05	1.04	1.06	1.02	0.99	
	velocity	5.38	8.70	8.79	8.62	8.96	9.82	7.78		
<b>Lovett, Eddie (ISV) (1992)</b>	time	2.58	3.67	4.70	5.78	6.85		7.84	7 / 5	
	reaction time	0.182	interval		1.09	1.03	1.08	1.07	0.99	
	velocity	5.32	8.39	8.87	8.46	8.54	9.82	7.65		
<b>Zaza, Wellington (LBR) (1995)</b>	time	2.50	3.60	4.70	5.78	6.88		7.87	2 / 6	
	reaction time	0.153	interval		1.10	1.10	1.08	1.10	0.99	
	velocity	5.49	8.31	8.31	8.46	8.31	9.82	7.62		
<b>Holloway, Trey (USA) (1994)</b>	time	2.57	3.76		5.97	7.03		8.10	1 / 7	
	reaction time	0.166	interval	7 steps	1.19		2.21	1.06	1.07	
	velocity	5.34	7.68		8.27	8.62	9.08	7.41		



Evaluated with: ObjectusVideo

Quality & Frame Rate: 1920 x 1080 @ 30fps

Timing From: First Movement

Source: [https://www.youtube.com/watch?v=fl\\_9f4GWqubs](https://www.youtube.com/watch?v=fl_9f4GWqubs)