

# Lessons on Leadership and Learning from Motorsport

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# Introduction

We often look to sport as an example on issues such as, leadership and Culture.

There are lessons to be learned from the introduction of the Halo Device in Formula 1, IndyCar and a few other prominent series.

Motorsport also offers a much more accessible example of safety culture.

# Safety Culture

Safety culture has become a controversial topic with lots of research on, what it is, what it isn't, how to measure it, how to change it etc.

Focusing on less contentious parts here:

- Leadership
- Investigation and Learning

# Motorsport

Motorsport has seen continual evolution around safety from days of no helmets or seatbelts to drivers walking away from high speed, multi-car accidents with no injuries.

A major reason for this has been the introduction of new technologies, including purpose built barriers, head and neck restraints (HANS device) and fireproof clothing.

Some of these technologies, such as the HANS device, were controversial at the time of their introduction, but have come to be completely accepted and drivers would never venture out onto the track without them.

It is this history that makes the introduction of halo particularly interesting.

# Halo



Figure 1: IndyCar Halo/Aeroscreen (1)



Figure 2: Formula 1 Halo (2)

# Sample

The world's most prominent open cockpit racing series were chosen:

- Formula 1
- IndyCar
- F2/F3000/GP2

Driver fatalities between 1995 and 2019 were studied as this covers what was often cited as a new era in Formula 1 following Ayrton Senna's death up until the halo became mandatory in all series.

Deaths during testing as well as racing were considered, however deaths of spectators or stewards were not included as, whilst no less tragic, the halo is not relevant in these.

# Results

Driver	Date	Location	Series	Halo Relevance
Marco Campos	October 15, 1995,	Circuit de Nevers Magny-Cours	Formula 3000	Yes
Jeff Krosnoff	July 14, 1996	Toronto Road Course	IndyCar	Possible
Paul Dana	March 26, 2006	Homestead-Miami Speedway	IndyCar	No
Henry Surtees	July 19, 2009	Brands Hatch	Formula 2	Yes
Dan Wheldon	October 16, 2011	Las Vegas Motor Speedway	IndyCar	Yes
Maria De Villota	18 August, 2011	Duxford Aerodrome	Formula 1	Yes
Jules Bianchi	October 5, 2014	Suzuka Circuit	Formula 1	Possible
Justin Wilson	August 24, 2015	Pocono Raceway	IndyCar	Yes

Table 1: Fatal Accidents

# Results



Figure 3: Jules Bianchi (3)



Figure 4: Jeff Krosnoff (4)



Figure 5: Paul Dana (5)



# Results

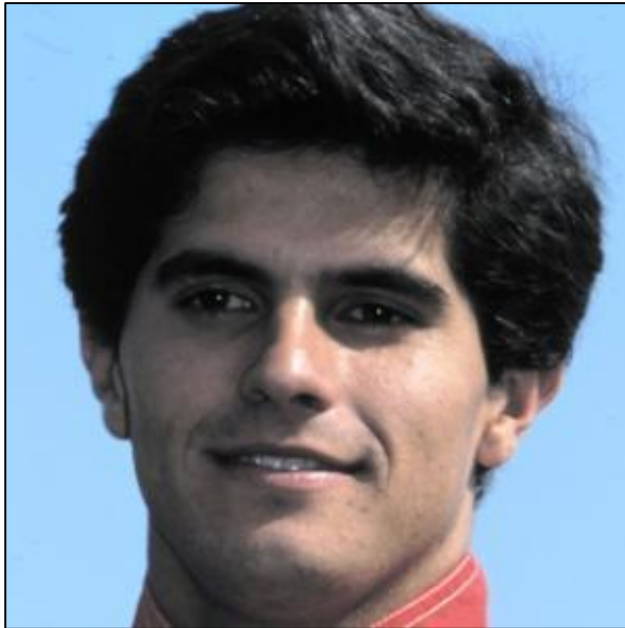


Figure 6: Marco Campos (6)



Figure 7: Henry Surtees (7)

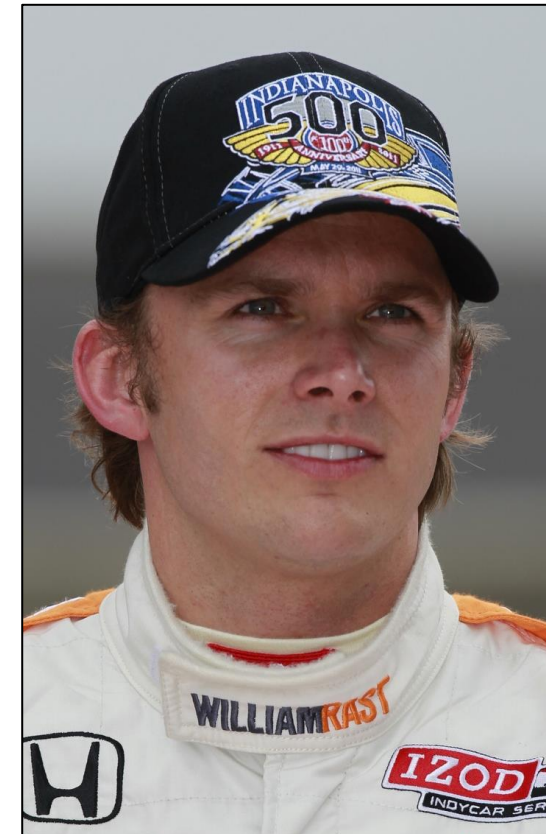


Figure 8: Dan Wheldon (8)

# Results



Figure 9: Maria De Villota (9)



Figure 10: Justin Wilson (10)

# Results

De Villota's accident occurred in 2011 whilst Bianchi's occurred in 2014

Both accidents share clear similarities:

- High ground clearance vehicles
- Direct impact to drivers head
- Same racing series



Figure 11: Jules Bianchi Crash (11)



Figure 12: Maria De Villota Crash (12)

# Results

Surtees' accident occurred in 2009 whilst Wilson's occurred in 2014

Both accidents also share clear similarities:

- Debris from a previous incident is spread over the track.
- Strikes the driver directly in the helmet.



Figure 13: Henry Surtees Accident (13)

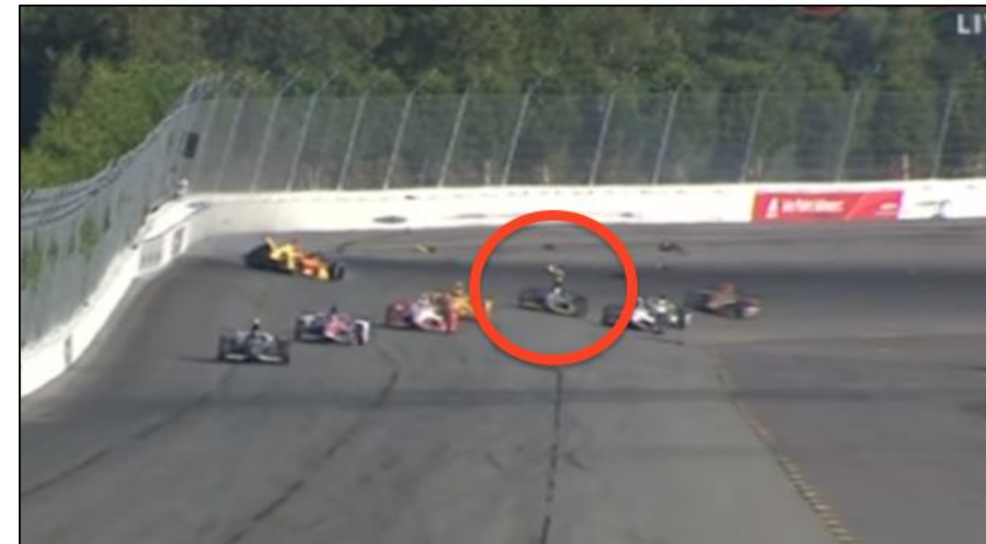


Figure 14: Justin Wilson Accident (14)

# Lessons to be Learned

Many industries have unique challenges when it comes to culture.

Changes will inevitably be made in the long run. It can either be done the easy way or the hard way.

Bold leadership may be unpopular in the short term but it will be rewarded in the long term.



Figure 15: Grosjean Accident Coverage (15)



Figure 16: Romain Grosjean Accident (16)

# Conclusion

Whilst the period of 1995-2019 saw major advances in safety for open-wheel racing series, a number of preventable deaths occurred.

A lack of willingness to learn lessons and resistance to change prevented action being taken earlier.

Bold leadership eventually brought change but later than it should have.

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# Thank You

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- Any questions?