Paul Curry, Elcano Simulator Notes

Upwards throttle

Data 2

* 227 max throttle
* 3 second ramp to max throttle
* 13.5 m/s max speed
* 4 second to max speed
* 1.3 sec to first reaction

Data 3

* 227 max throttle
* 0 second ramp to max throttle
* 13.5 m/s max speed
* 1.6 second to max speed
* 0.6 sec to first reaction

Data 4

* 94 max throttle
* 5 second to max throttle
* 1.613 max speed
* 6.7 sec to max speed
* 2.7 sec to first reaction

Data 5

* 227 max throttle
* 5 second ramp to max throttle
* 6.6 m/s max speed
* 5.9 full speed
* 2.3 sec to first reaction

Physical parameters:

1st Model linear function: f(throttle, time)

Cut off speed at 0

Average reaction time: f(t,1.725) = 0

f(throttle, time) = throttle \* CONST \* (REACTION\_TIME – time)

2nd Model from previous data: f(throttle)

Cut off speed at 0

(must be mass of trike or something)

Implementation notes: Create buffer of 10 throttle values so get throttle means

Actual Physics

Simplified (no head wind, change of area, gravity ect)

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