



# Quasi-Steady-State Report

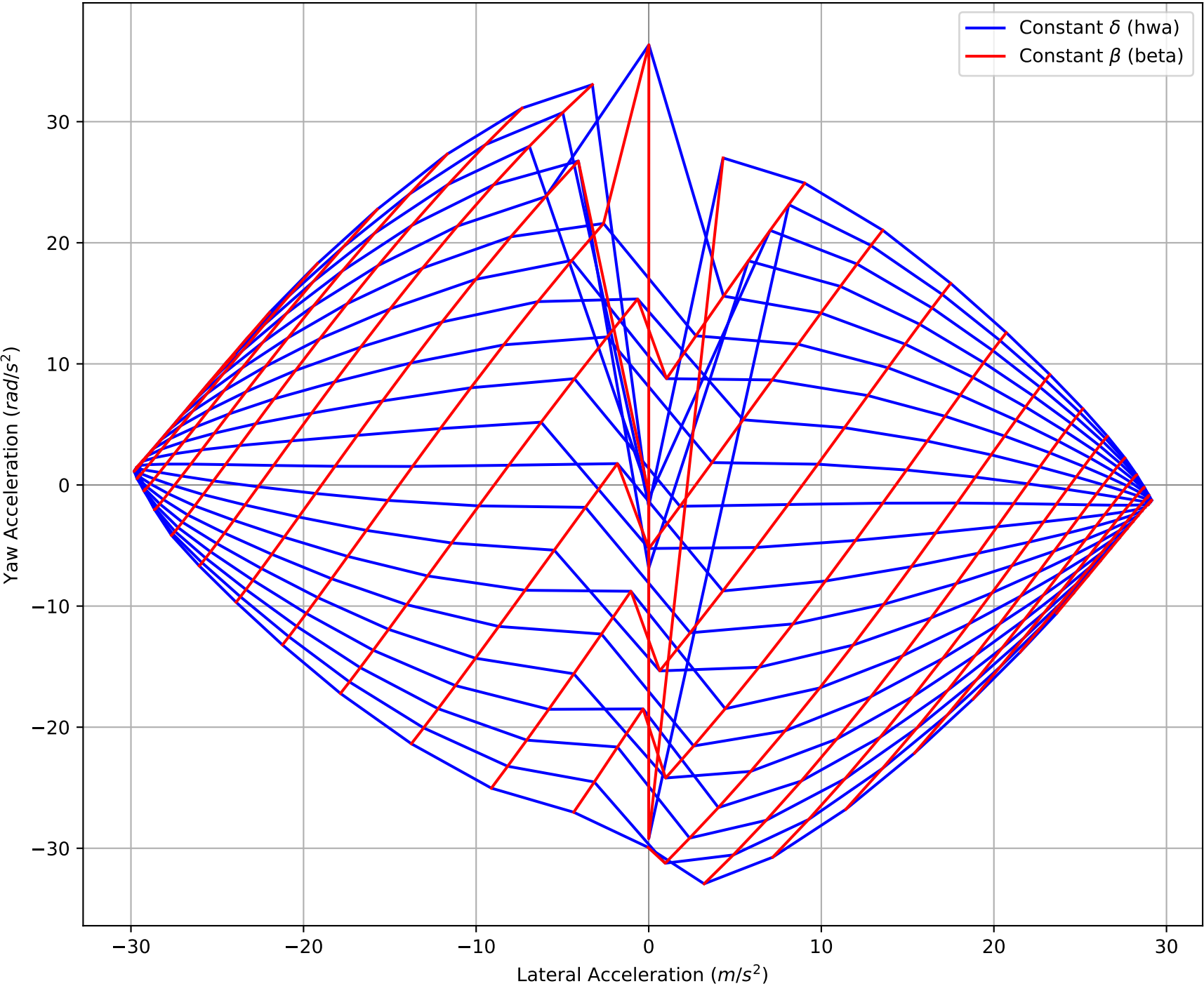
Simulation Author: Robert Horvath

Generated By: Robert (roberthorvath5@gmail.com)

Date: 2025-08-19, 09:26 PM CDT

# Appendix

Constant Radius: 100 m | Yaw Acceleration vs Lateral Acceleration



		Left Half	Right Half
$\max(a_y)$	$(m/s^2)$	-29.824	29.146
$\max(a_y _{\ddot{\psi}=0})$	$(m/s^2)$	-29.444	28.635
$\ddot{\psi} _{\max(a_y)}$	$(rad/s^2)$	1.120	-1.249
$\beta _{\max(a_y)}$	$(deg)$	9.000	-10.000
$\delta _{\max(a_y)}$	$(deg)$	-12.500	12.500
$\max(\ddot{\psi})$	$(rad/s^2)$	-32.933	36.347
$\beta _{\max(\ddot{\psi})}$	$(deg)$	-4.000	2.000
$\delta _{\max(\ddot{\psi})}$	$(deg)$	-25.000	15.000
$a_y _{\max(\ddot{\psi})}$	$(m/s^2)$	3.211	0.008
$\frac{d\ddot{\psi}}{d\delta}\Big _{\max(a_y)}$	$\left(\frac{rad/s^2}{deg}\right)$	-0.032	-0.005
$\frac{d\ddot{\psi}}{d\beta}\Big _{\max(a_y)}$	$\left(\frac{rad/s^2}{deg}\right)$	0.452	0.293
$\frac{d\ddot{\psi}}{d\delta}\Big _{\beta=0}$	$\left(\frac{rad/s^2}{deg}\right)$	-5.442	
$\frac{d\ddot{\psi}}{d\beta}\Big _{\delta=0}$	$\left(\frac{rad/s^2}{deg}\right)$	6.705	