Position and Attitude Response of Model A.2 Compared to A.1 and PID 10 x_{ref} 0 8 x_{PID} $x_{RL,A.1}$ -56 x Position [m] y Position [m] $x_{RL,A.2}$ Model A.1 failed at 5.20 seconds. Model A.2 failed at 6.70 seconds. -102 -15 y_{ref} 0 y_{PID} -20 $y_{RL,A.1}$ -2 $y_{RL,A.2}$ -25-42 2 6 8 10 6 8 10 4 4 20 75 ϕ_{PID} z_{ref} $\phi_{RL,A.1}$ z_{PID} 50 15 $\phi_{RL,A.2}$ $z_{RL,A.1}$ ϕ Angle [degree] z Position [m] $z_{RL,A.2}$ 25 10 0 -255 -50-750 0 2 6 8 10 2 6 8 4 0 4 10 ψ_{PID} 75 θ_{PID} 75 $\theta_{RL,A.1}$ $\psi_{RL,A.1}$ 50 50 $\theta_{RL,A.2}$ $\psi_{RL,A.2}$ ψ Angle [degree] θ Angle [degree] 25 25 0 0 -25 -25-50-50-75-752 6 8 10 2 4 10 0 4 0 6 8 Time [s] Time [s]