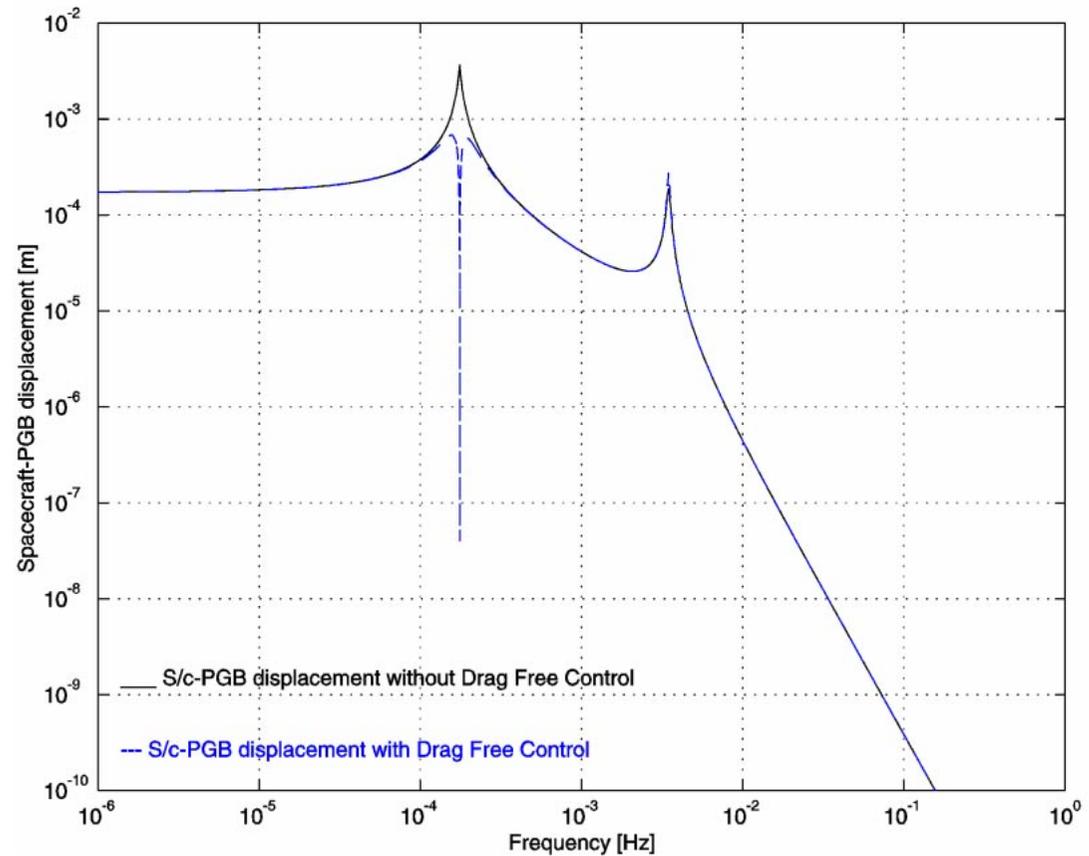Alenia
A E R O S P A Z I O
Space Division

drag force along the X axis

DRAG FREE CONTROL (2)

The DFC designed for GG is a notch filter at the orbital frequency, with narrow bandwidth, so that it acts in a frequency band where there is no passive attenuation due to the PGB

Theoretical relative displacement between the PGB and the spacecraft, without (continuous black curve) and with (dashed blue curve) the application of drag free control.

$m_{S/C} = 122.1$ kg, $m_{PGB} = 63.6$ kg, $f_S = 2$ Hz, $Q_{SPRING} = 90$