

Symbol	Description	Value
$a$	Earth's radius	$6.4 \times 10^6 \text{ m}$
$\rho_0$	Reference air density	$1.3 \text{ kg m}^{-3}$
$g$	Gravitational acceleration	$9.8 \text{ ms}^{-2}$
$T_0$	Reference temperature	$273.16 \text{ K}$
$f$	Coriolis parameter	$2\Omega \sin(\phi)$
$\Omega$	Earth's angular velocity	$7.3 \times 10^{-5} \text{ rad s}^{-1}$
$C_\alpha$	Ageostrophic velocity parameter	5
$\alpha$	Cross-isobar angle	$\leq 10^\circ$
$H_0$	Atmosphere-scale height	$8 \times 10^3 \text{ m}$
$L$	Latent heat of evaporation	$2.257 \times 10^6 \text{ J Kg}^{-1}$
$\Gamma_a$	Dry adiabatic lapse rate	$9.8 \times 10^{-3} \text{ K m}^{-1}$
$\Gamma_0$	Temperature lapse rate parameter	$5.2 \times 10^{-3} \text{ K m}^{-1}$
$\Gamma_1$	Temperature lapse rate parameter	$5.5 \times 10^{-5} \text{ m}^{-1}$
$\Gamma_2$	Temperature lapse rate parameter	$10^{-3} \text{ K m}^{-1}$
$a_q$	Temperature lapse rate parameter	$10^3 \left(\frac{\text{kg}}{\text{kg}}\right)^2$
$K_z$	Coefficient of the small-scale and mesoscale turbulent exchange for the momentums	$0.005 z \text{ m}^2 \text{ s}^{-1}$