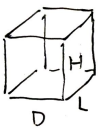
PRECIPITATION UNITS

$\times \frac{mm}{day} \sim P \frac{kg}{m^2 \cdot s}$ $\qquad \rho_w \simeq 1000\ kg/m^3$



$P(\text{Bay of Bengal}) \sim 10 \frac{mm}{day} \sim 10^{-4} \frac{kg}{m^2 \cdot s}$

$= \beta q_L$

$\Rightarrow q_L \sim \frac{10^{-4}}{2.5 \cdot 10^{-2}} \sim 0.004$

$\rightarrow \Delta M = D_m \cdot L_m \cdot \times \frac{mm}{day} \cdot \rho_w \frac{kg}{m^3} \cdot \Delta t \cdot s$

$= D \cdot L \cdot \rho_w \cdot \times \cdot \frac{mm}{m} \cdot \frac{s}{day} \cdot kg = DL \rho_w \cdot \times \cdot \frac{1}{1000} \cdot \frac{1}{24 \cdot 3600}\ kg \cdot \Delta t$

$\simeq 1.16 \cdot 10^{-8}\ DL \rho_w \times \cdot \Delta t\ kg$

$\rightarrow \Delta M = DL\ P\ \Delta t\ kg$

$\Rightarrow P = 1.16 \cdot 10^{-8} \cdot \rho_w \cdot \times = 1.16 \cdot 10^{-5} \cdot \times$

$\beta = \frac{P}{q_L} \quad \frac{\times}{1000 q_L} \simeq 2 \quad \Rightarrow \beta \simeq 2.5 \cdot 10^{-2} = 0.025$