

Reading in the book:

First paragraph of Chapter 7

7.2.2

7.2.3

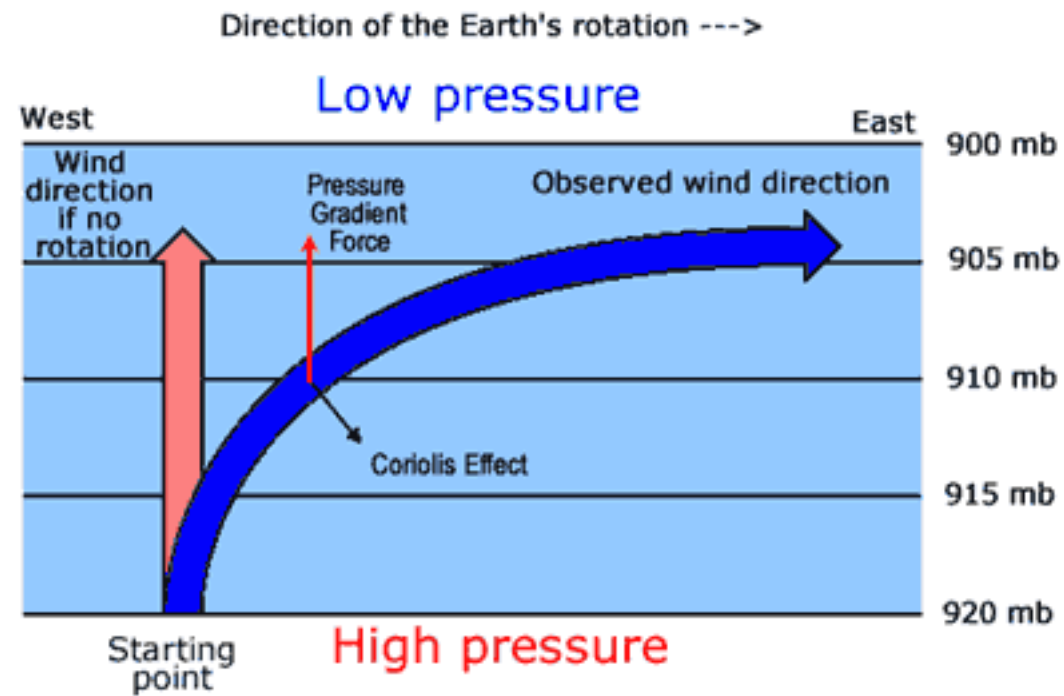
7.2.4

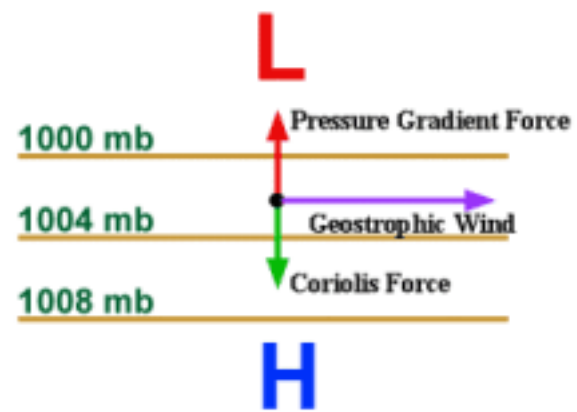
7.2.5

7.2.7

Website that visualizes global weather forecast data

<https://earth.nullschool.net>





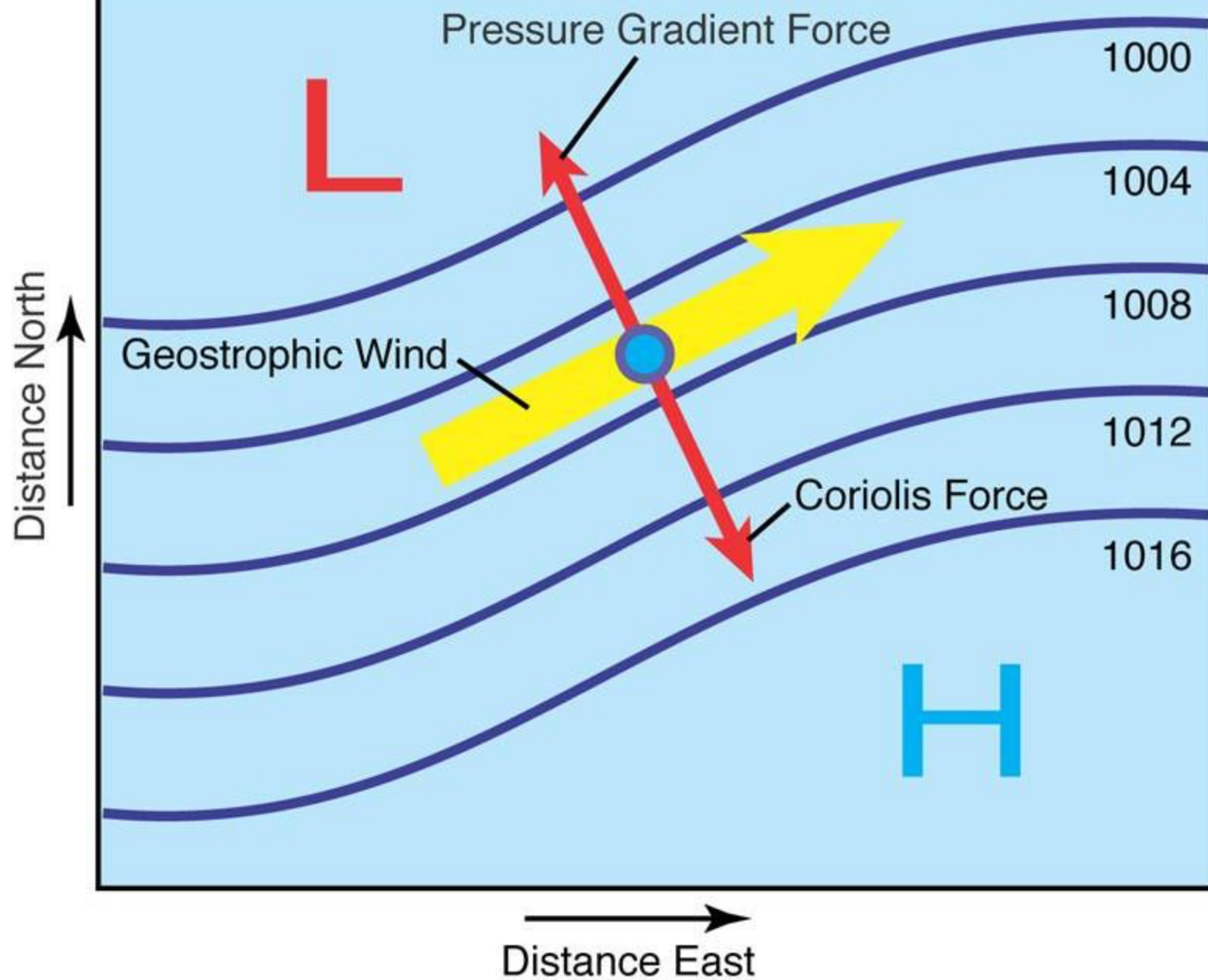
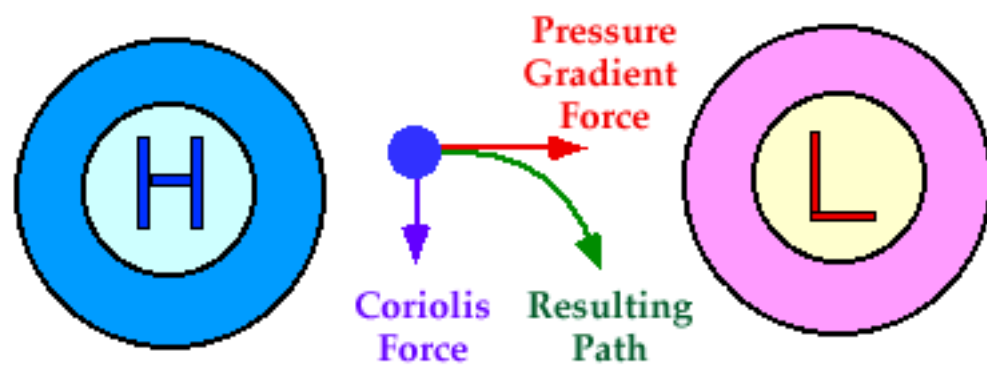
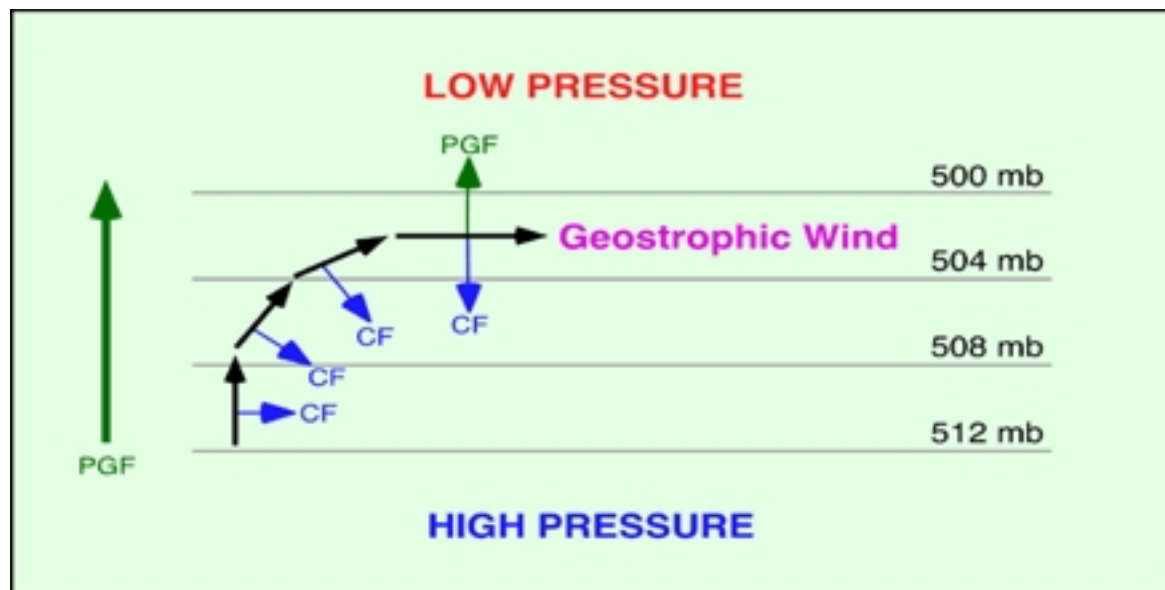
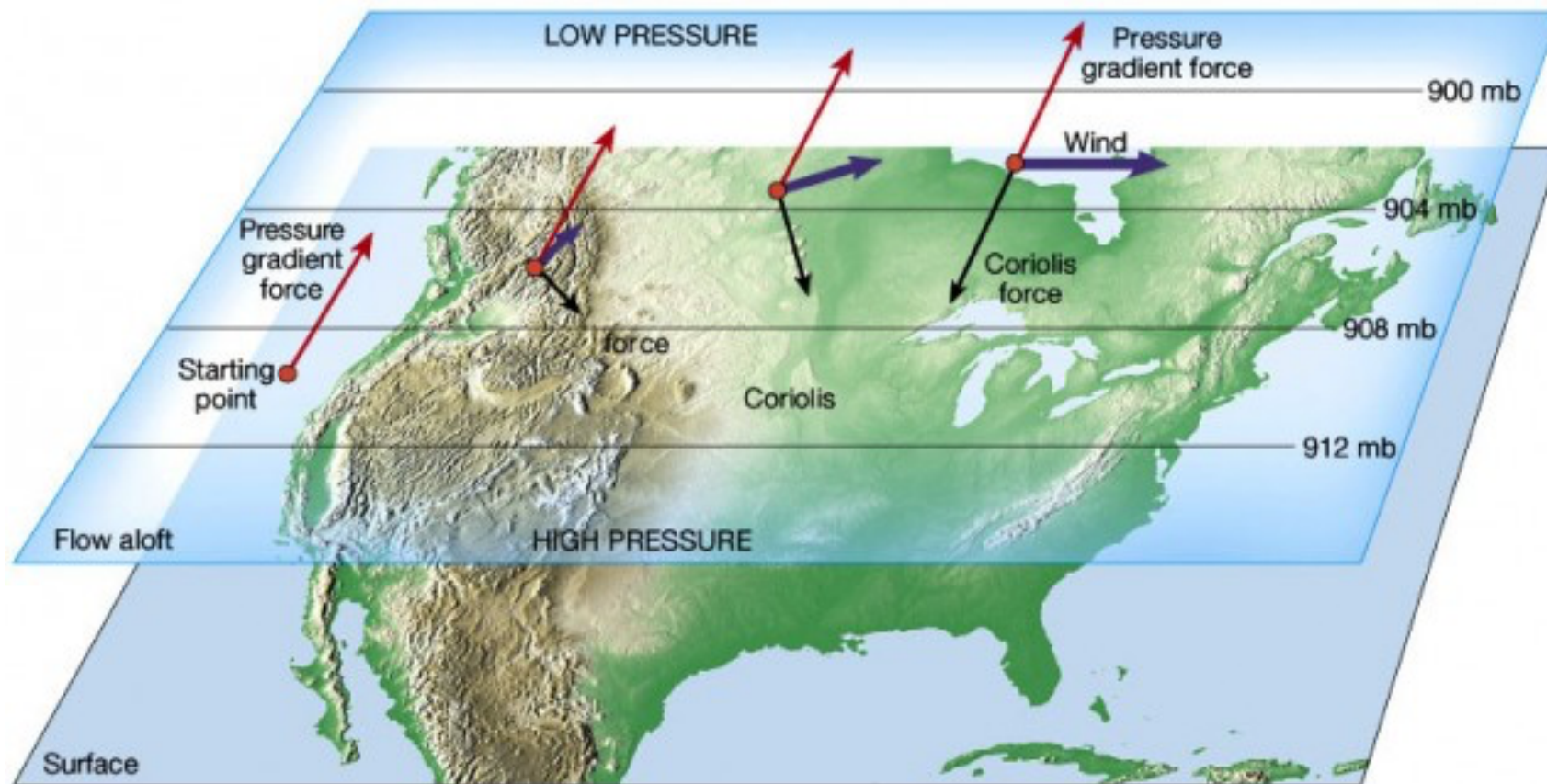


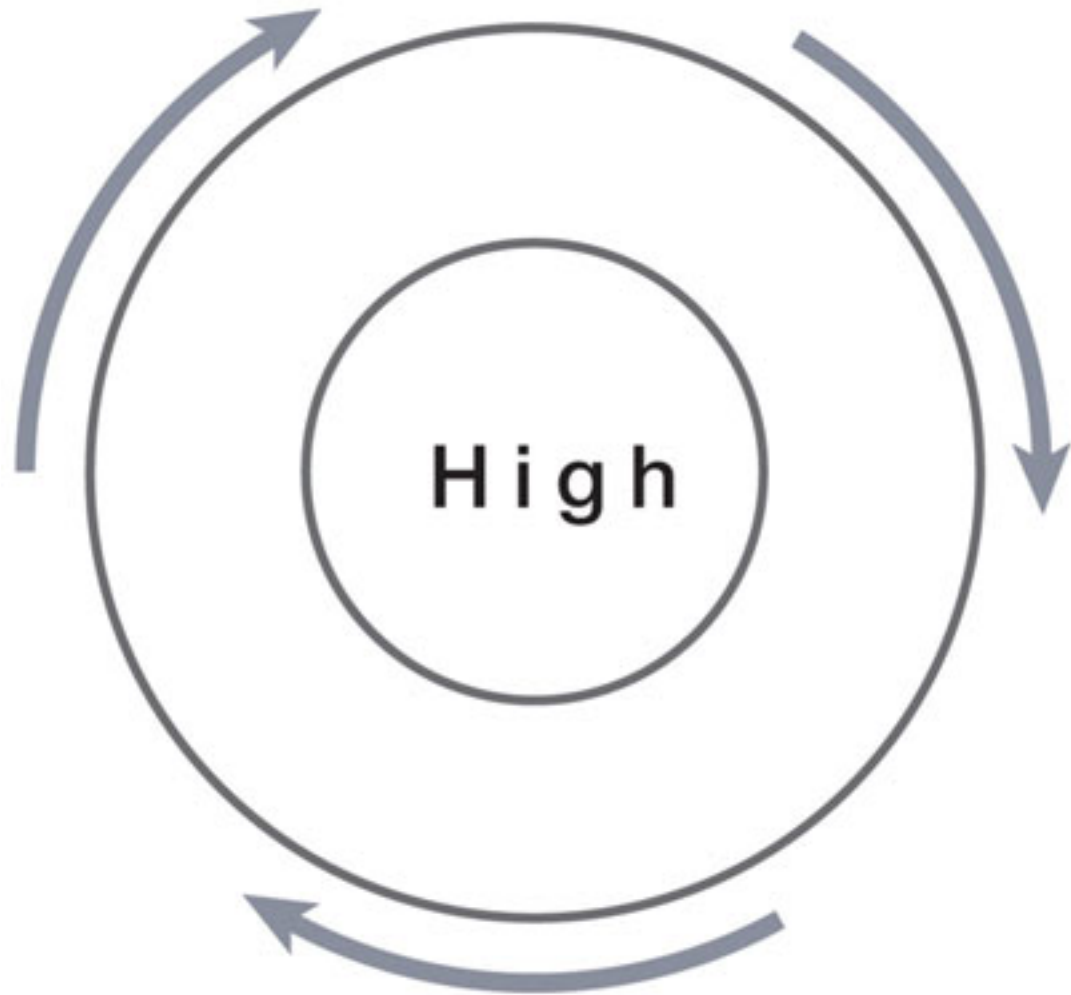
FIG 04-09
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Aviation Weather



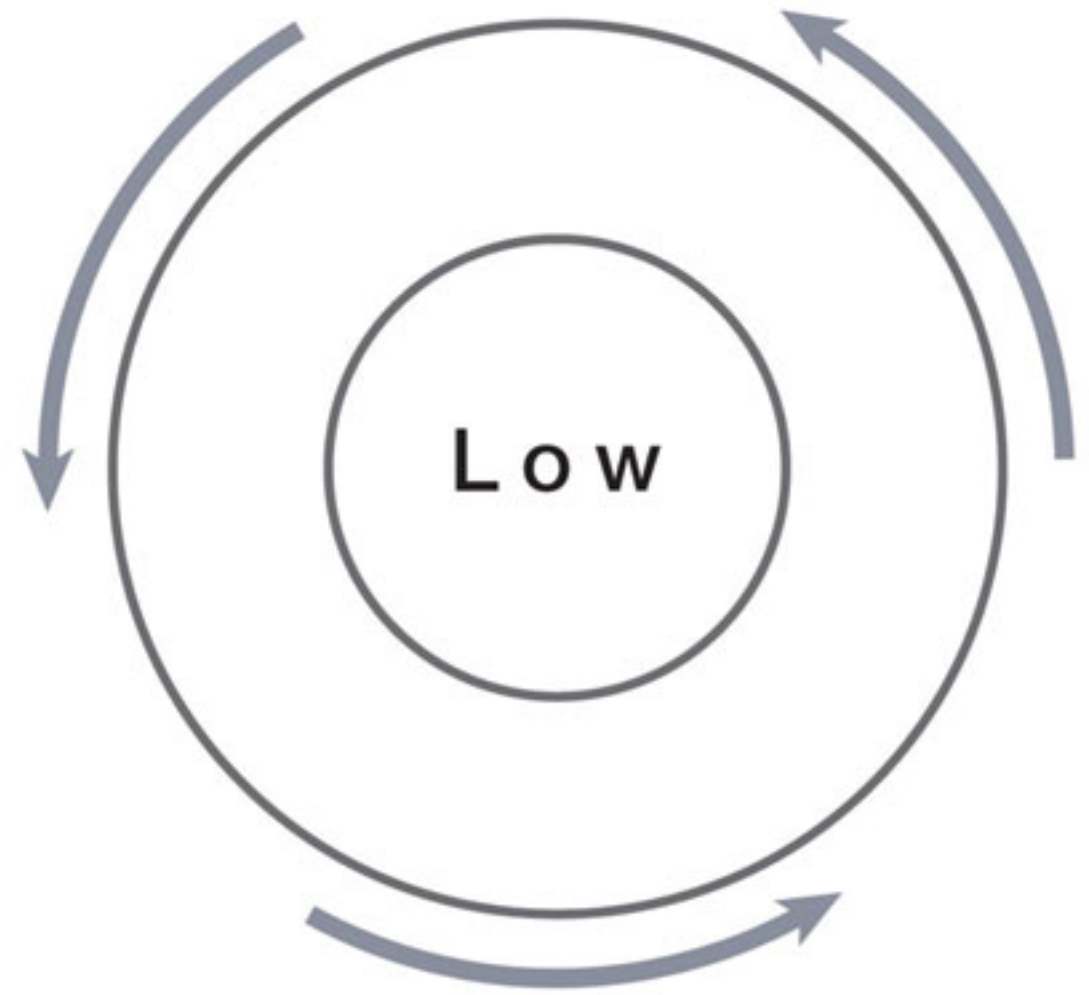




Northern Hemisphere upper-air pattern



**Anticyclonic geostrophic
clockwise flow**

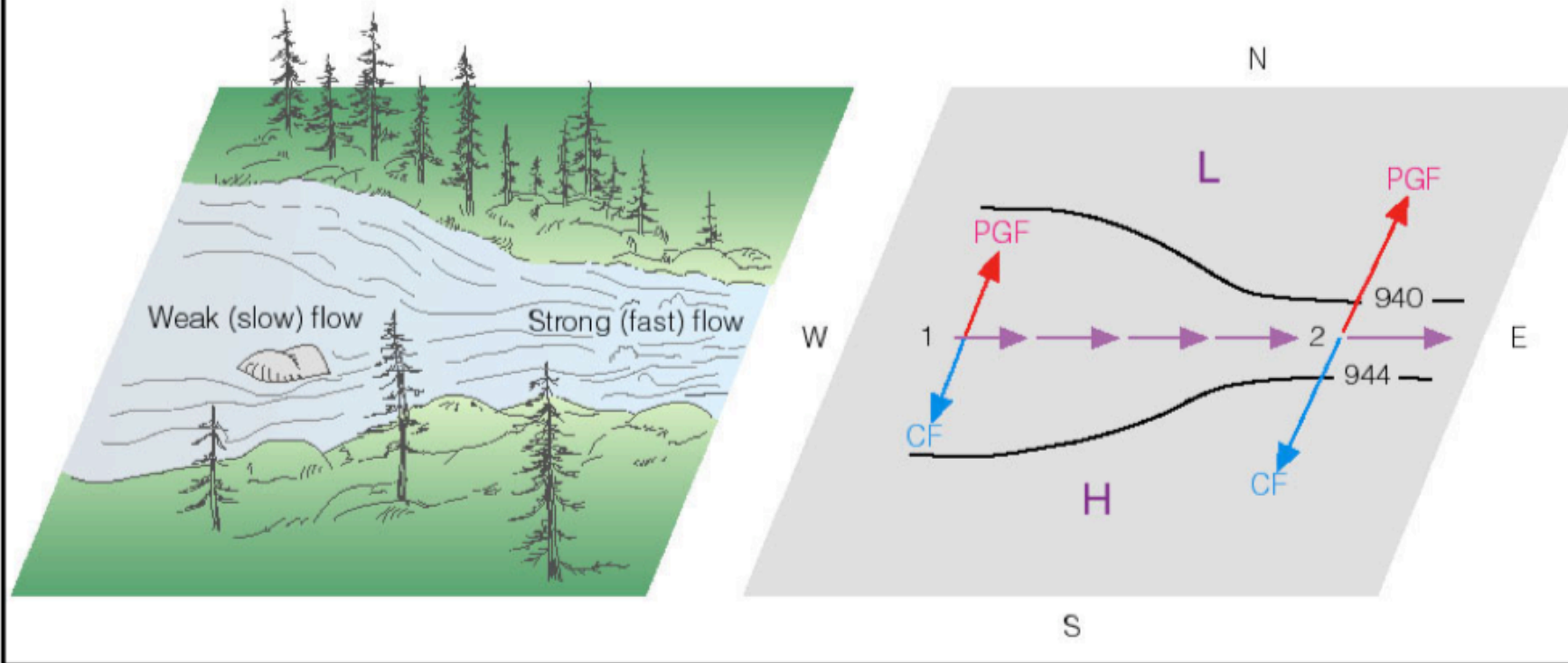


**Cyclonic geostrophic
counterclockwise flow**

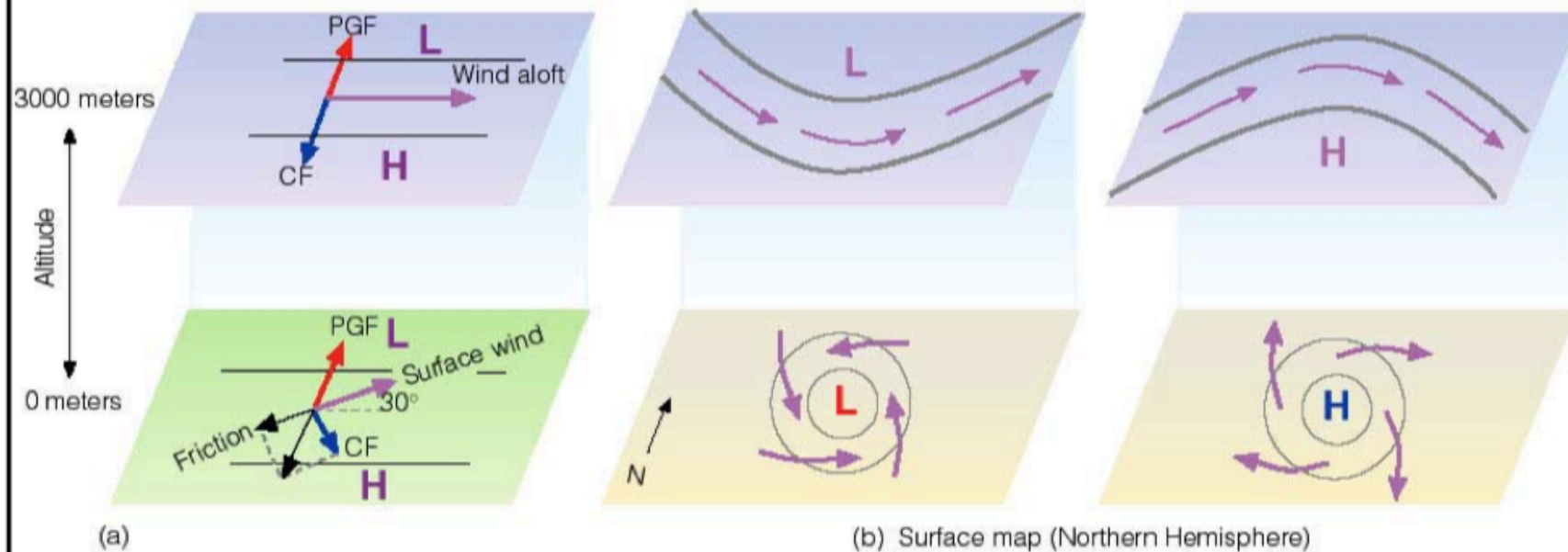
Geostrophic wind

(William Ferrel, 1856; Buys Ballot, 1857)

- **Direction:** in parallel to isobars, with high pressure to the right and low to the left in the Northern Hemisphere (opposite in the Southern Hemisphere)
- **Magnitude:** proportional to the spacing of isobars (analogous to river flow)

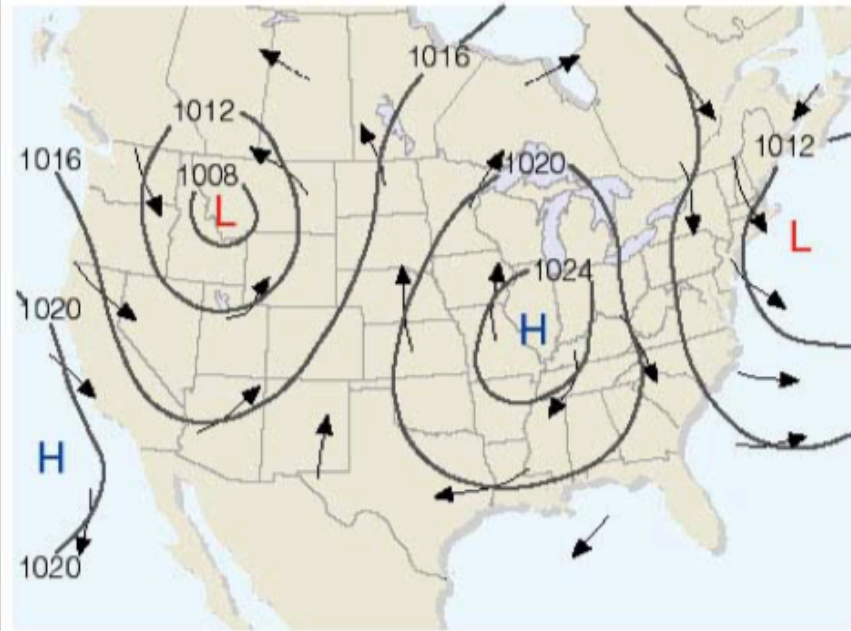


Friction allows surface wind to attain a cross-baric component directing from high to low.

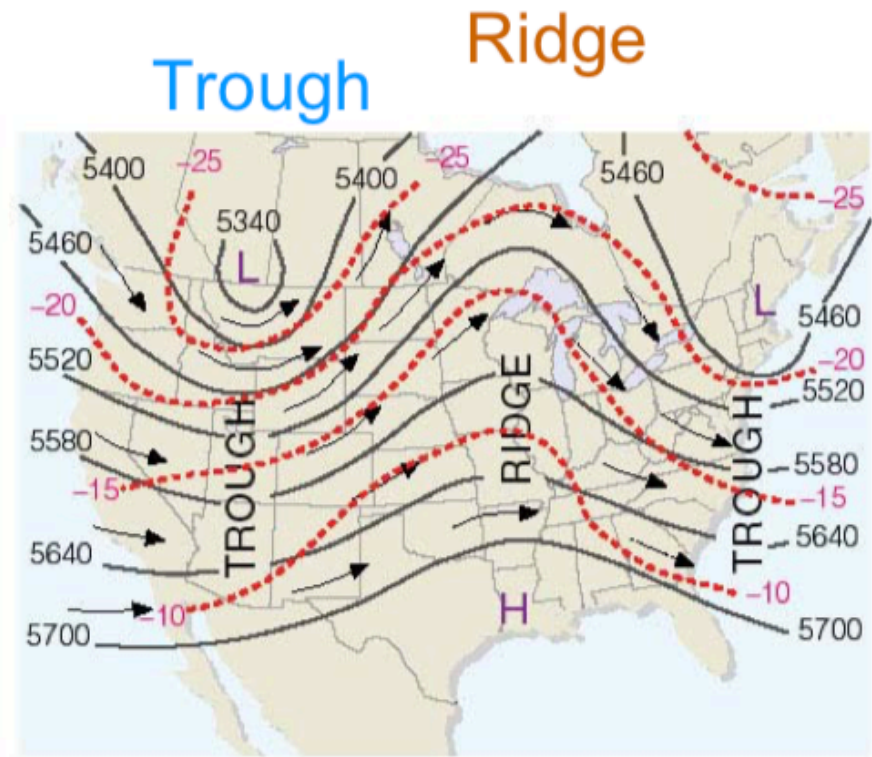


Inflow converging
onto the low

Outflow diverging
from the high



(a) Surface map



(b) Upper-air map (500 mb)