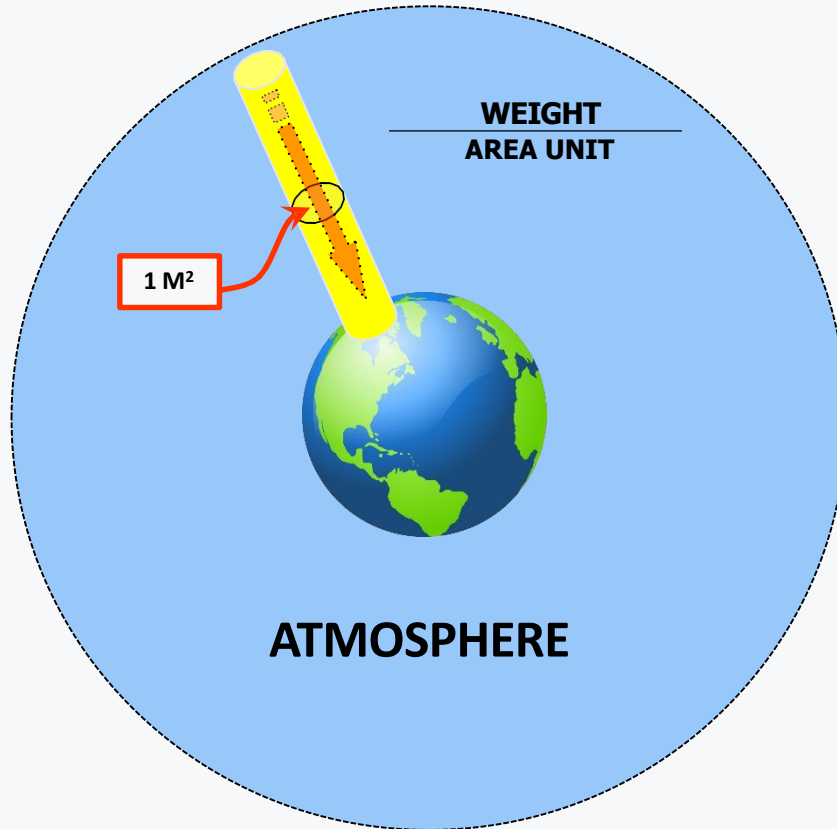


DRONESVIP

CIVIL AERONAUTICAL
TRAINING CENTER

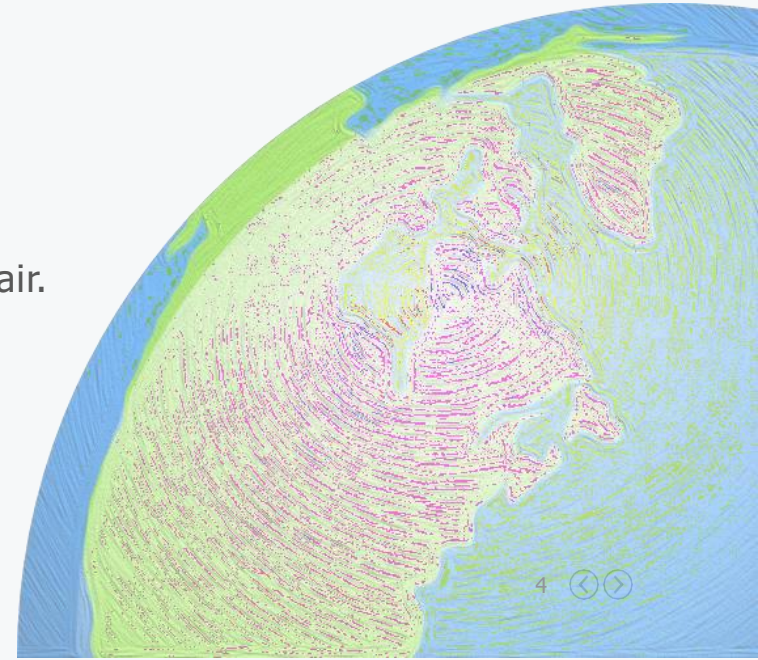
ATMOSPHERIC PRESSURE

ATMOSPHERE

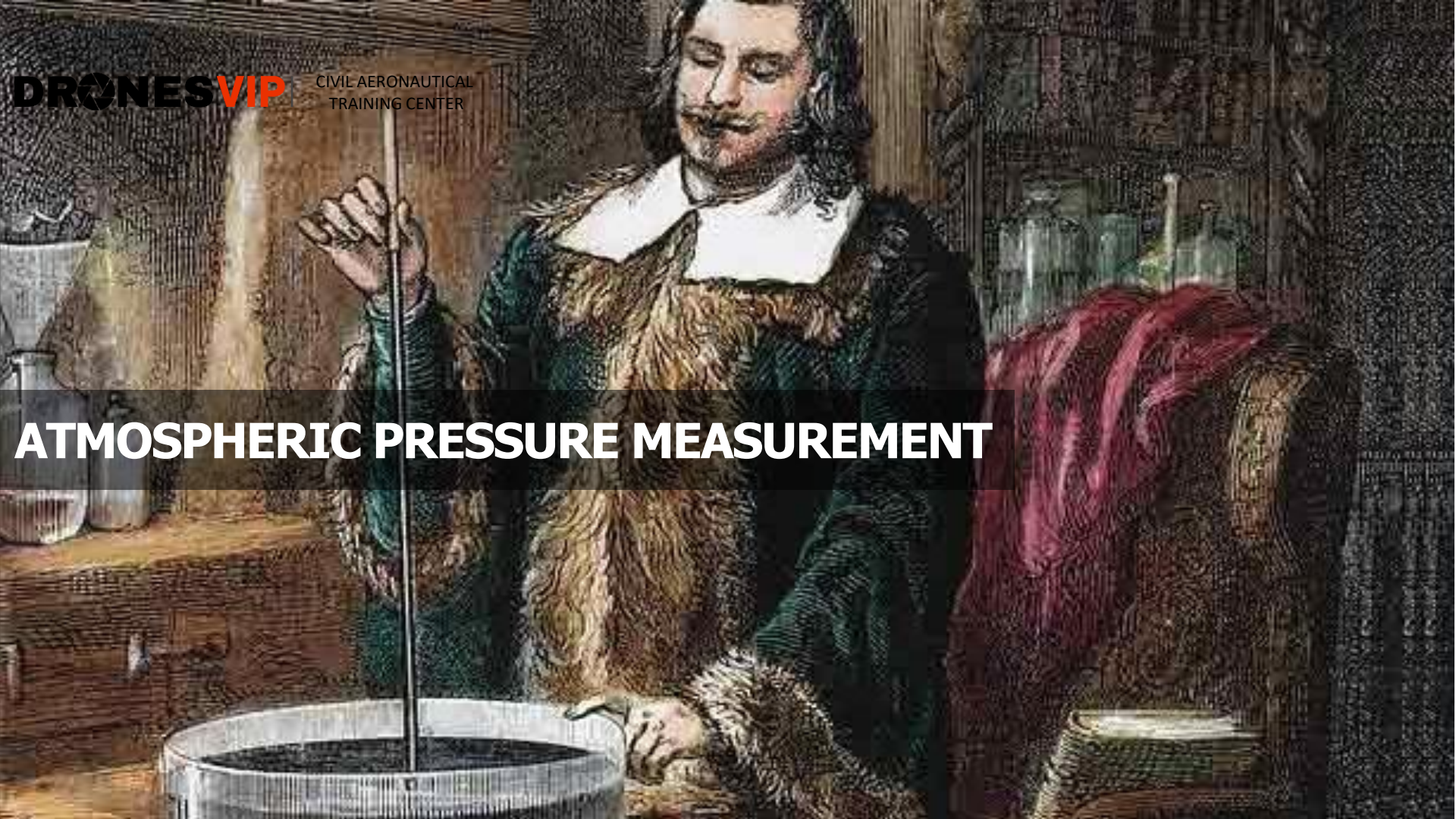


ATMOSPHERIC PRESSURE

- 01 It is the weight of the Atmosphere on the Earth's surface.
- 02 It decreases depending on the height.
- 03 It depends on the temperature and density of the air.

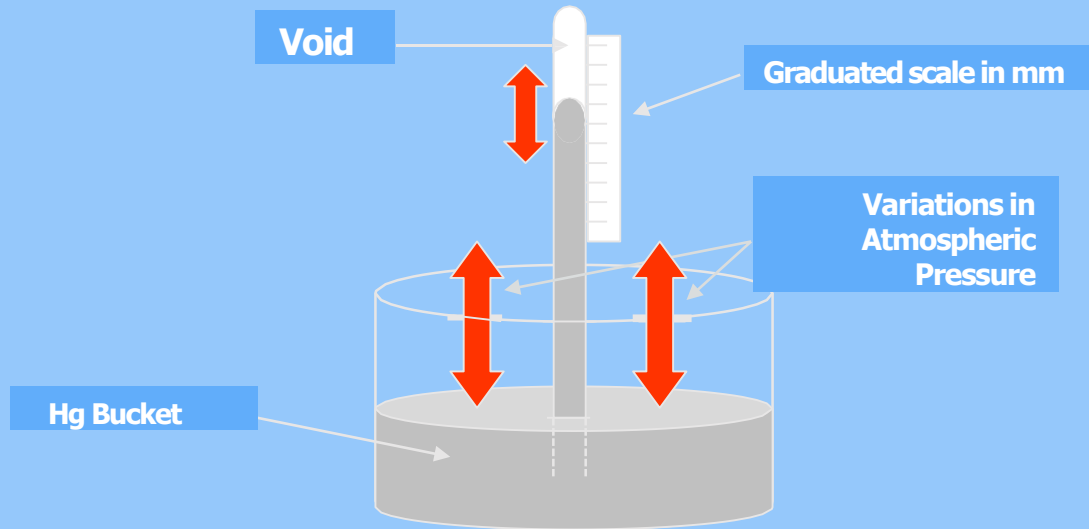


ATMOSPHERIC PRESSURE MEASUREMENT



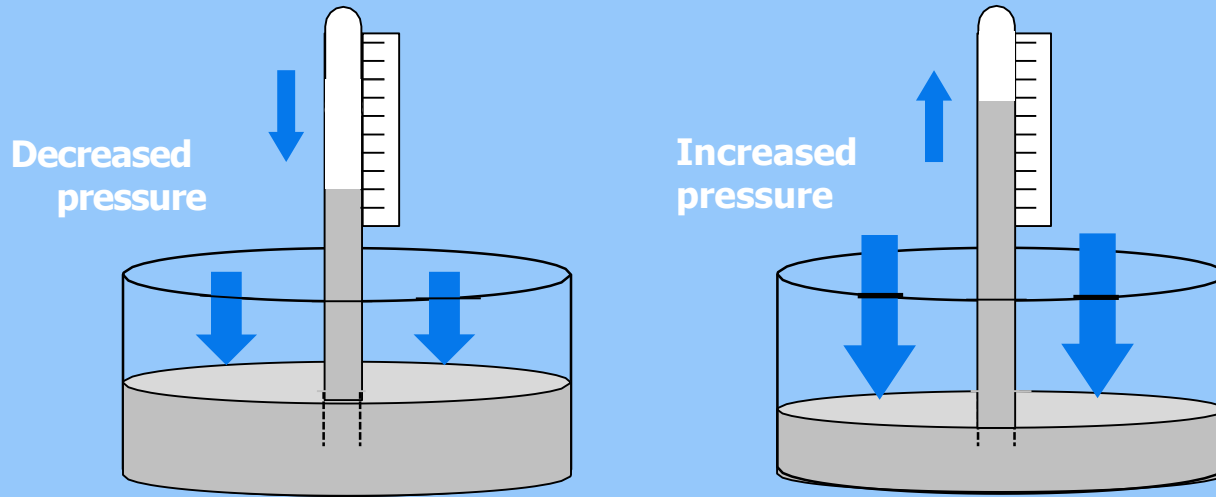
ATMOSPHERIC PRESSURE MEASUREMENT

Torricelli's Experience (barometer)

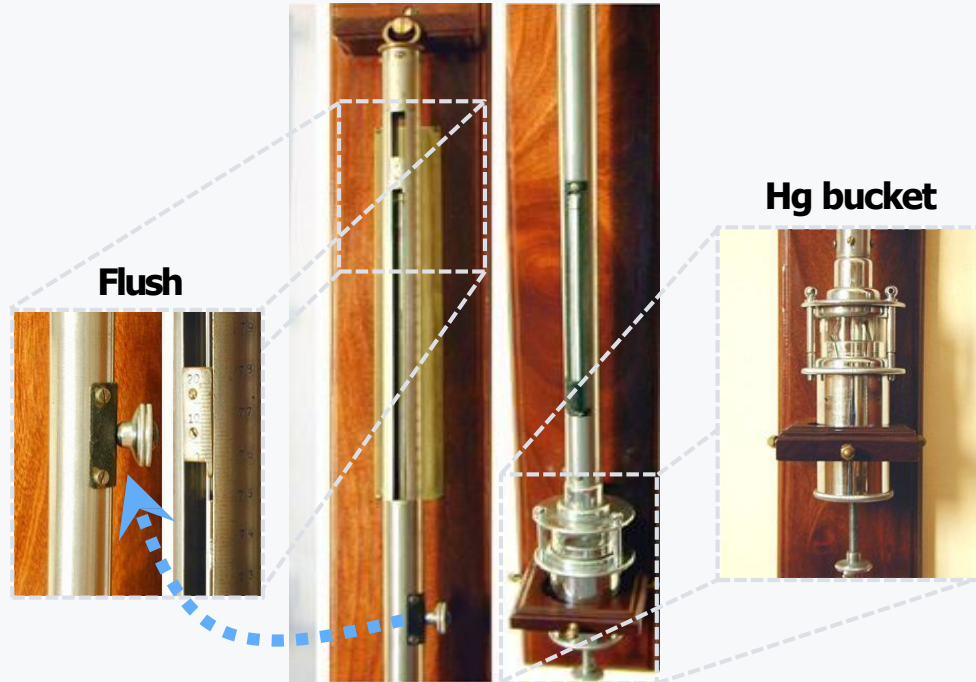


ATMOSPHERIC PRESSURE MEASUREMENT

Torricelli's Experience (barometer)

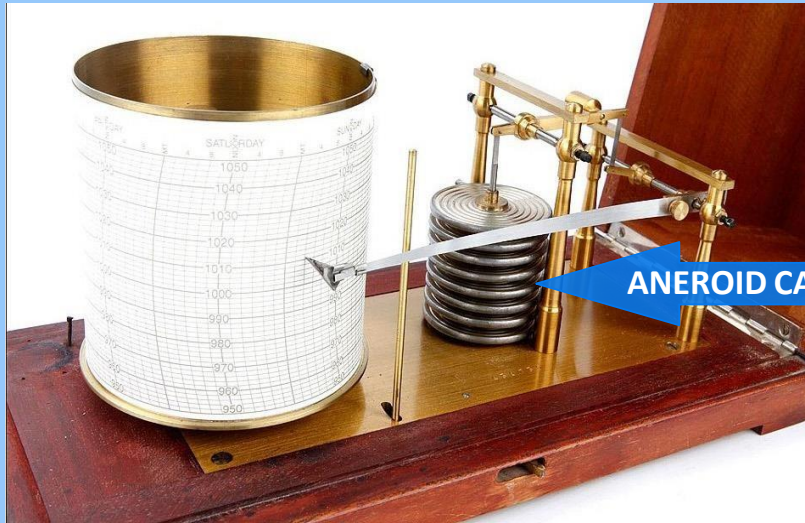


FORTÍN BAROMETER



ATMOSPHERIC PRESSURE MEASUREMENT

Current instruments "Barographs"



ANEROID CAPSULES



ATMOSPHERIC PRESSURE MEASUREMENT

Corrections to the value obtained from the barometer reading

- *By temperature (ref. 0° C.)*
- *By gravity (latitude)*



QFE



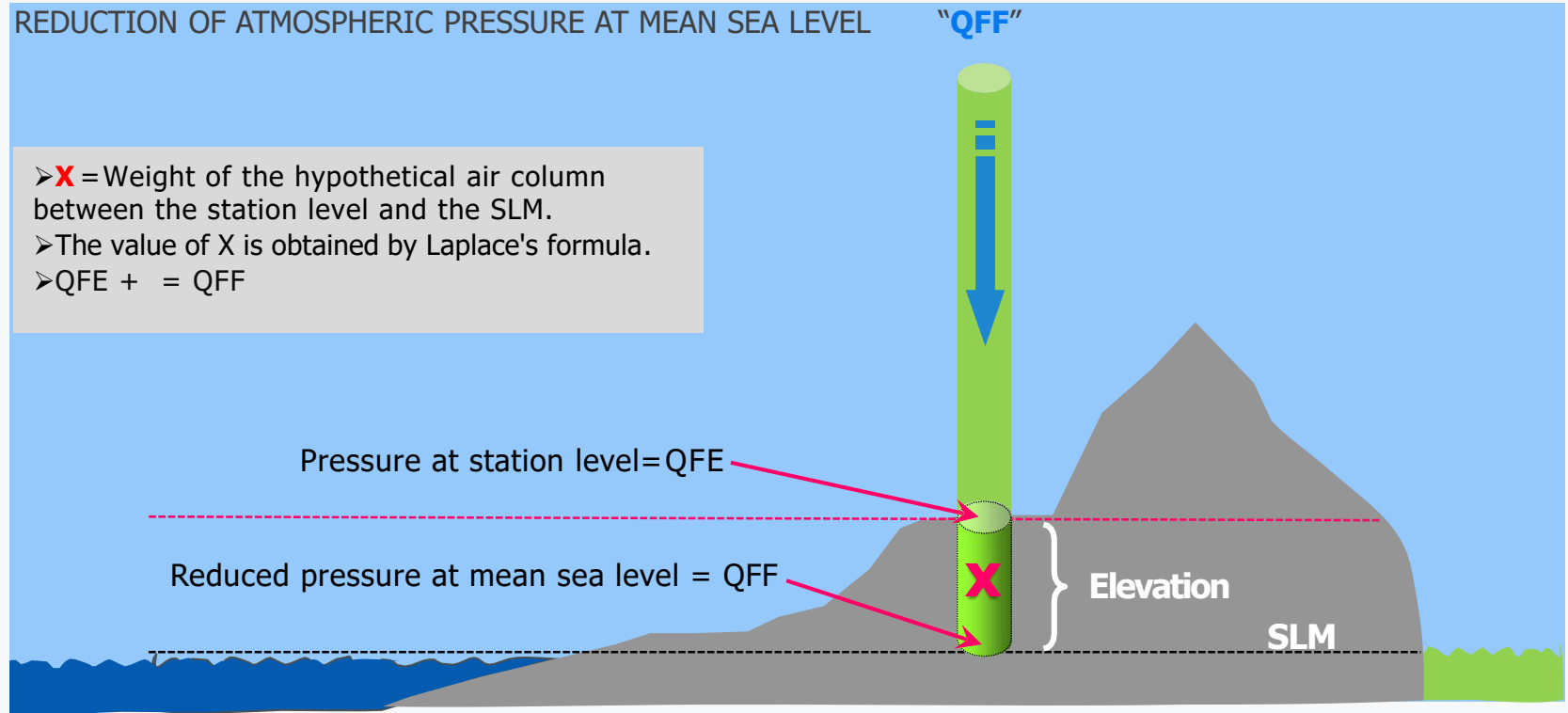
- *By elevation station or aerodrome (QFF Y QNH)*

ATMOSPHERIC PRESSURE MEASUREMENT

REDUCTION OF ATMOSPHERIC PRESSURE AT MEAN SEA LEVEL

"QFF"

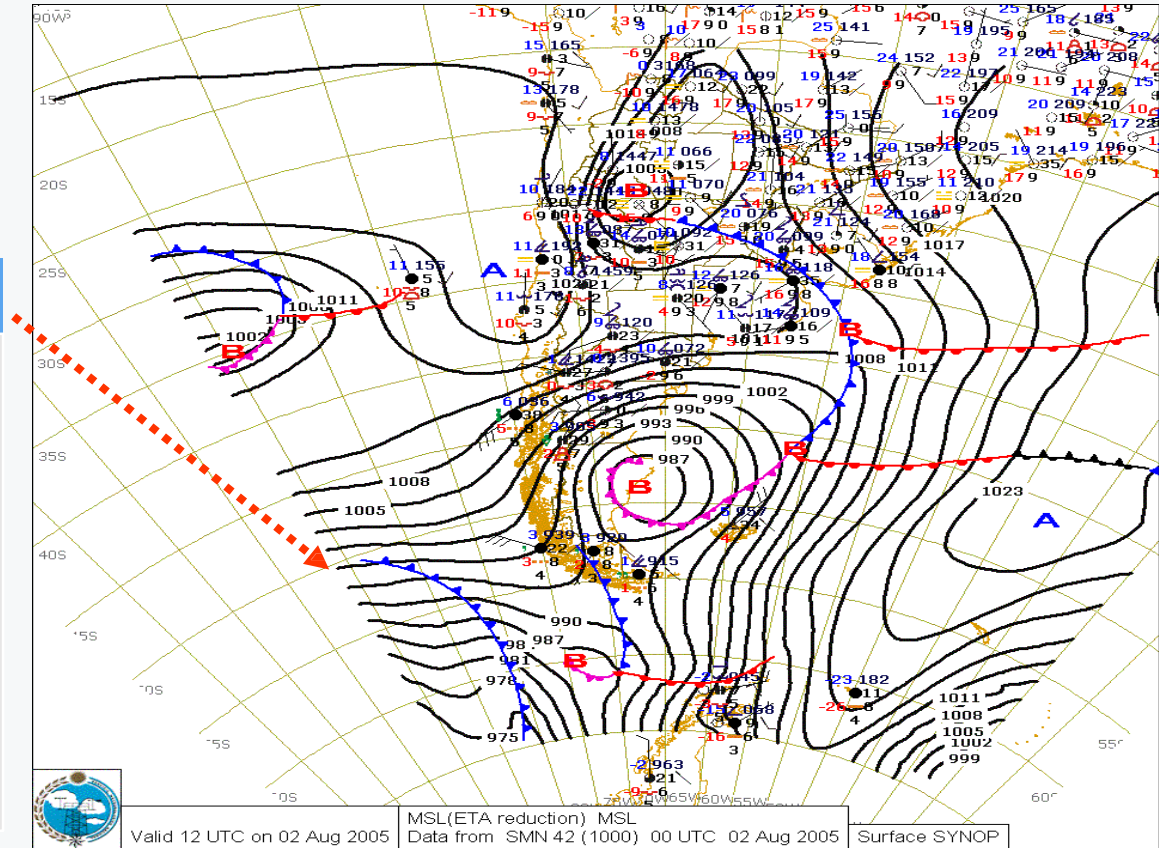
- **X** = Weight of the hypothetical air column between the station level and the SLM.
- The value of X is obtained by Laplace's formula.
- $QFE + X = QFF$



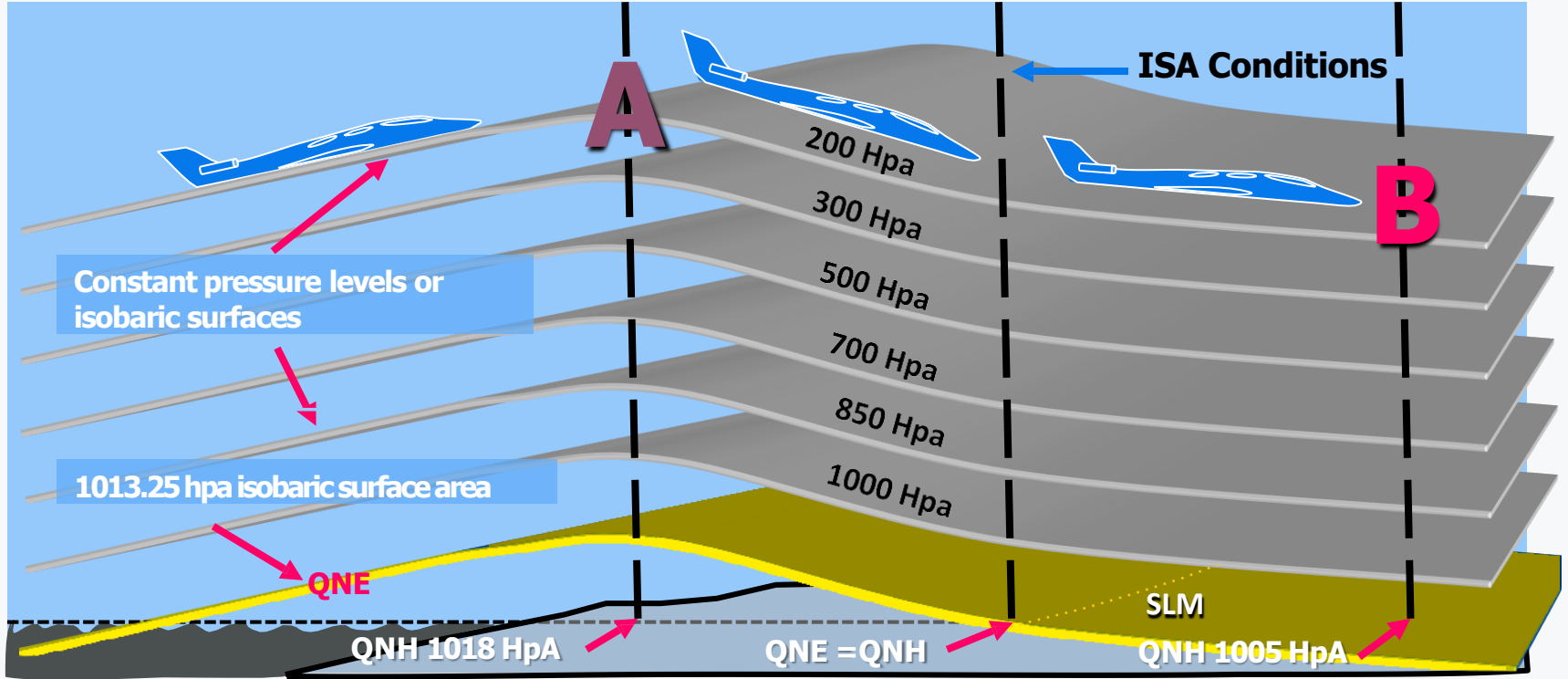
SURFACE SYNOPTIC CHART

Isobars

Lines drawn on a surface meteorological chart, which joins points of equal atmospheric pressure at mean sea level (QFF).



ISOBARIC SURFACES



ALTIMETRY BAROMETER - ALTIMETER

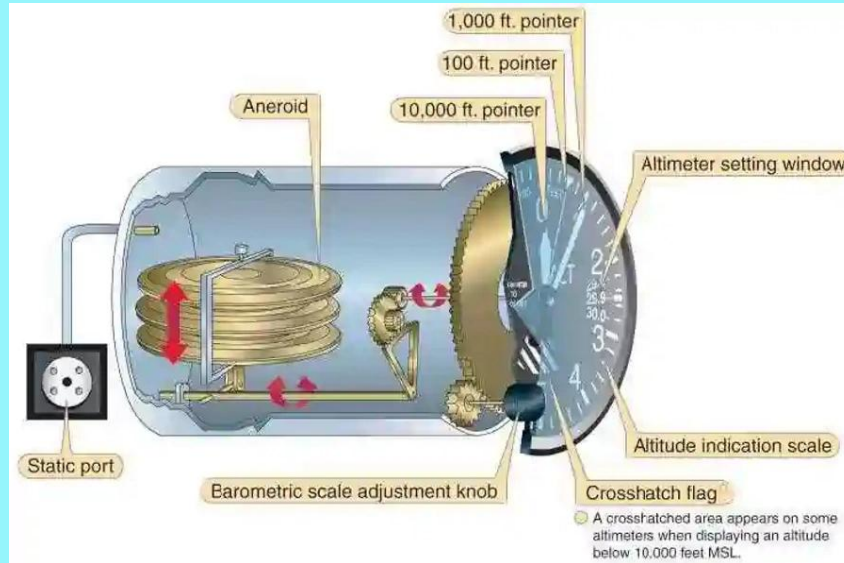
KOLLSMAN WINDOW
IN HPA OR MB.

WINDOW KOLLSMAN IN HG

PRESSURE SELECTOR
REFERENCE



ALTIMETRY BAROMETER - ALTIMETER



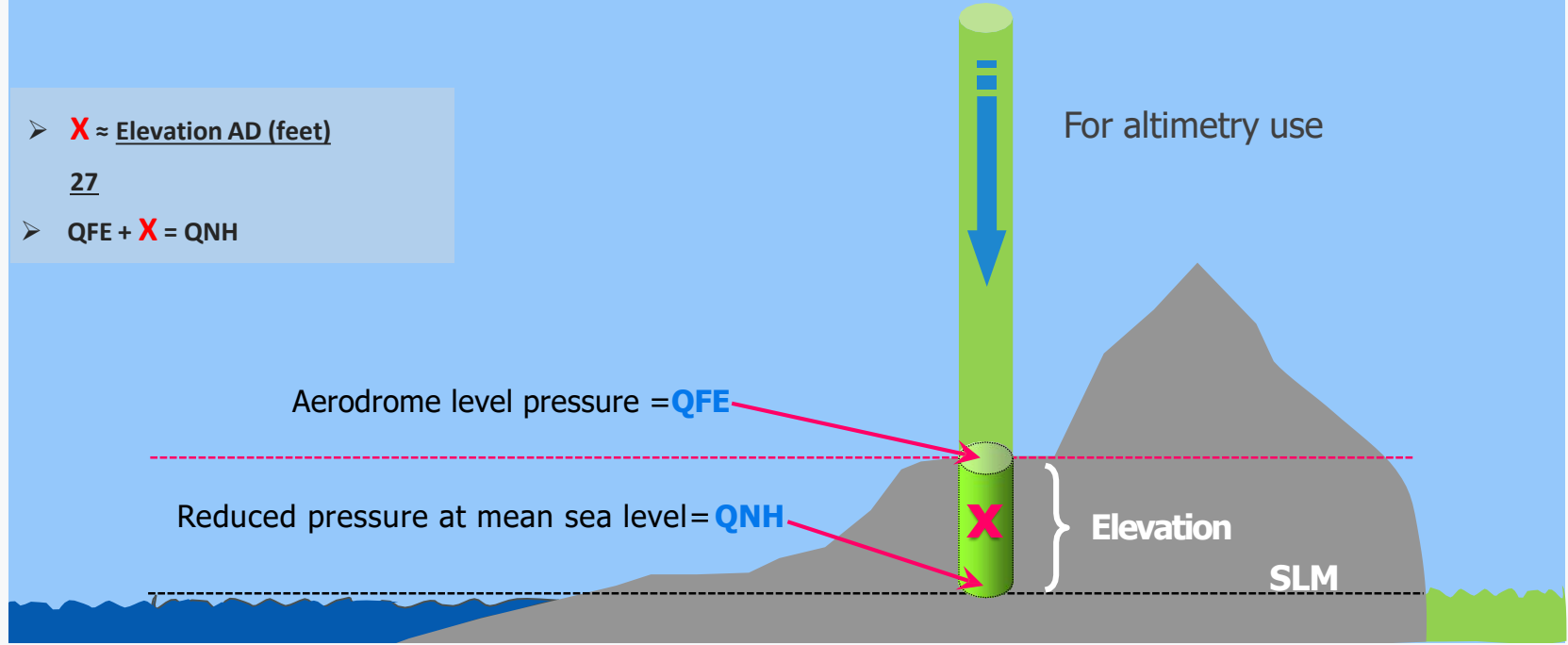
ATMOSPHERIC PRESSURE MEASUREMENT

REDUCTION OF ATMOSPHERIC PRESSURE AT MEAN SEA LEVEL "QNH"

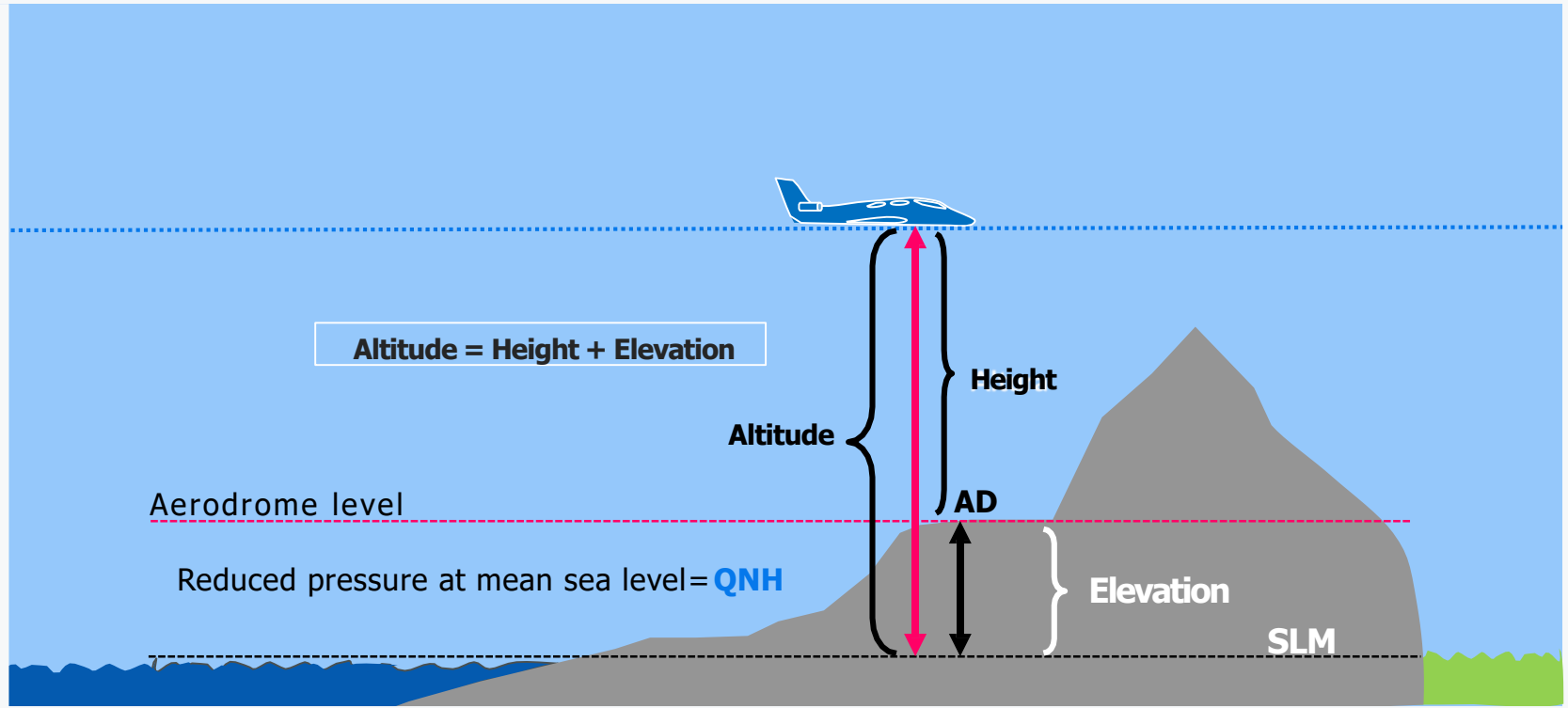
➤ $X \approx$ Elevation AD (feet)

27

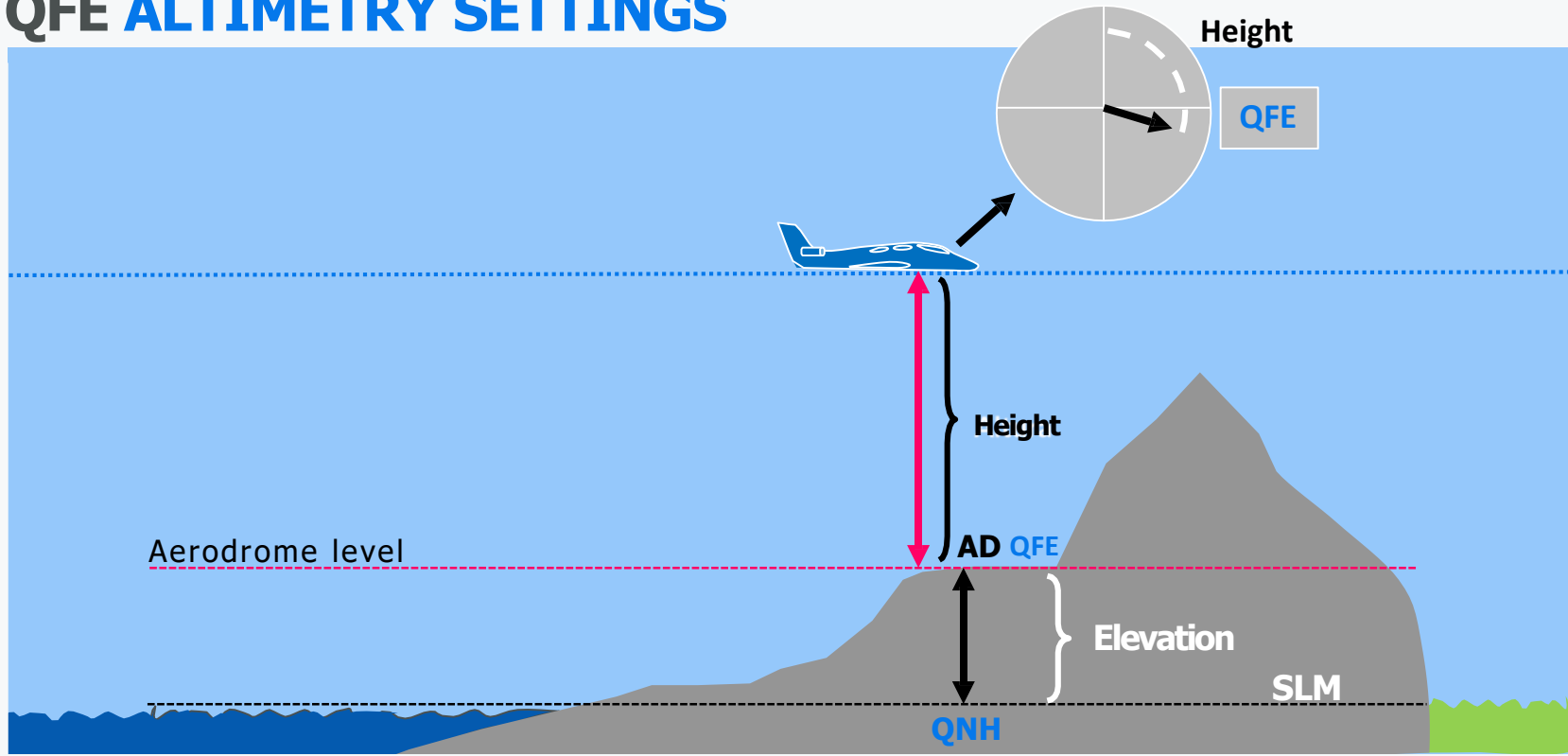
➤ $QFE + X = QNH$



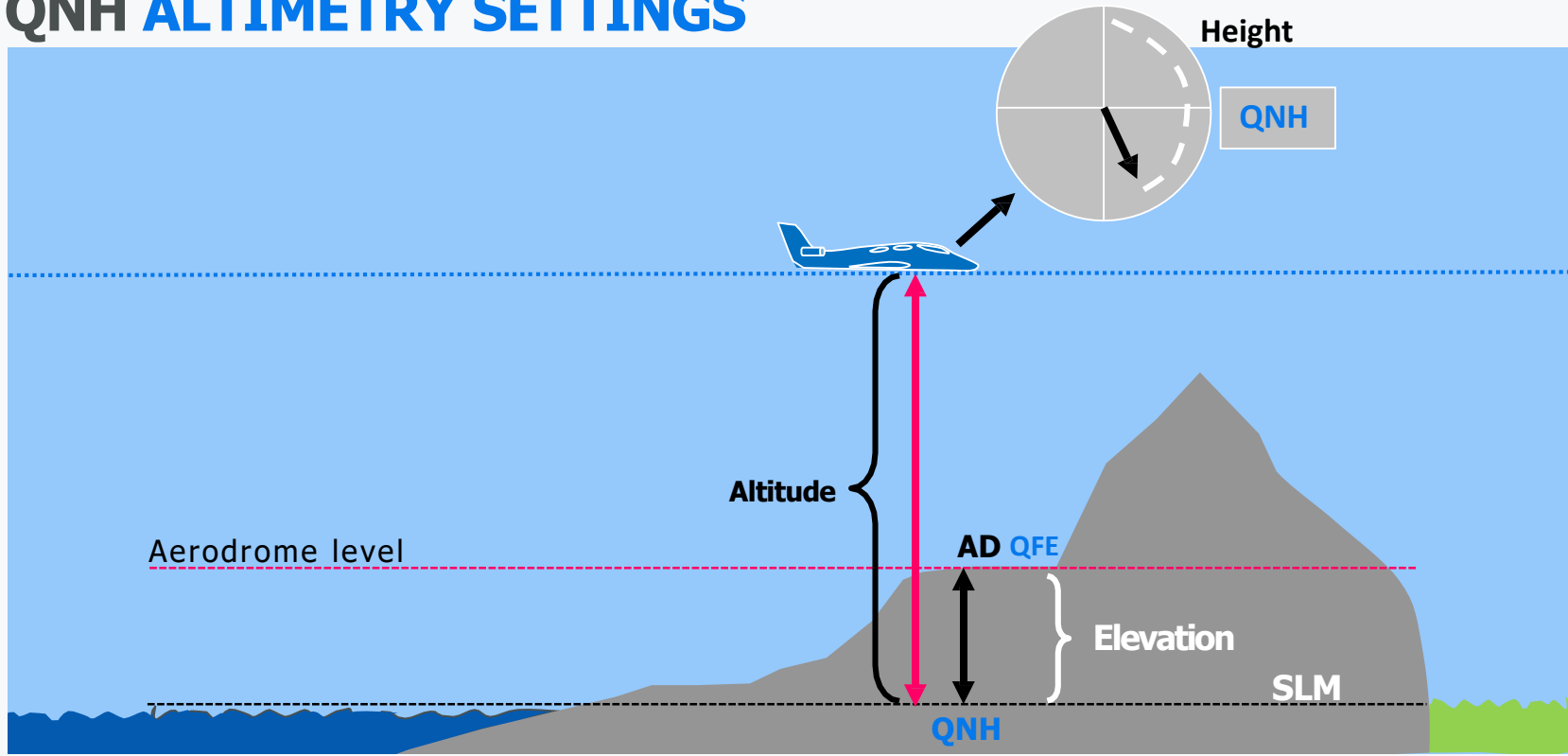
ALTIMETRIC REFERENCES



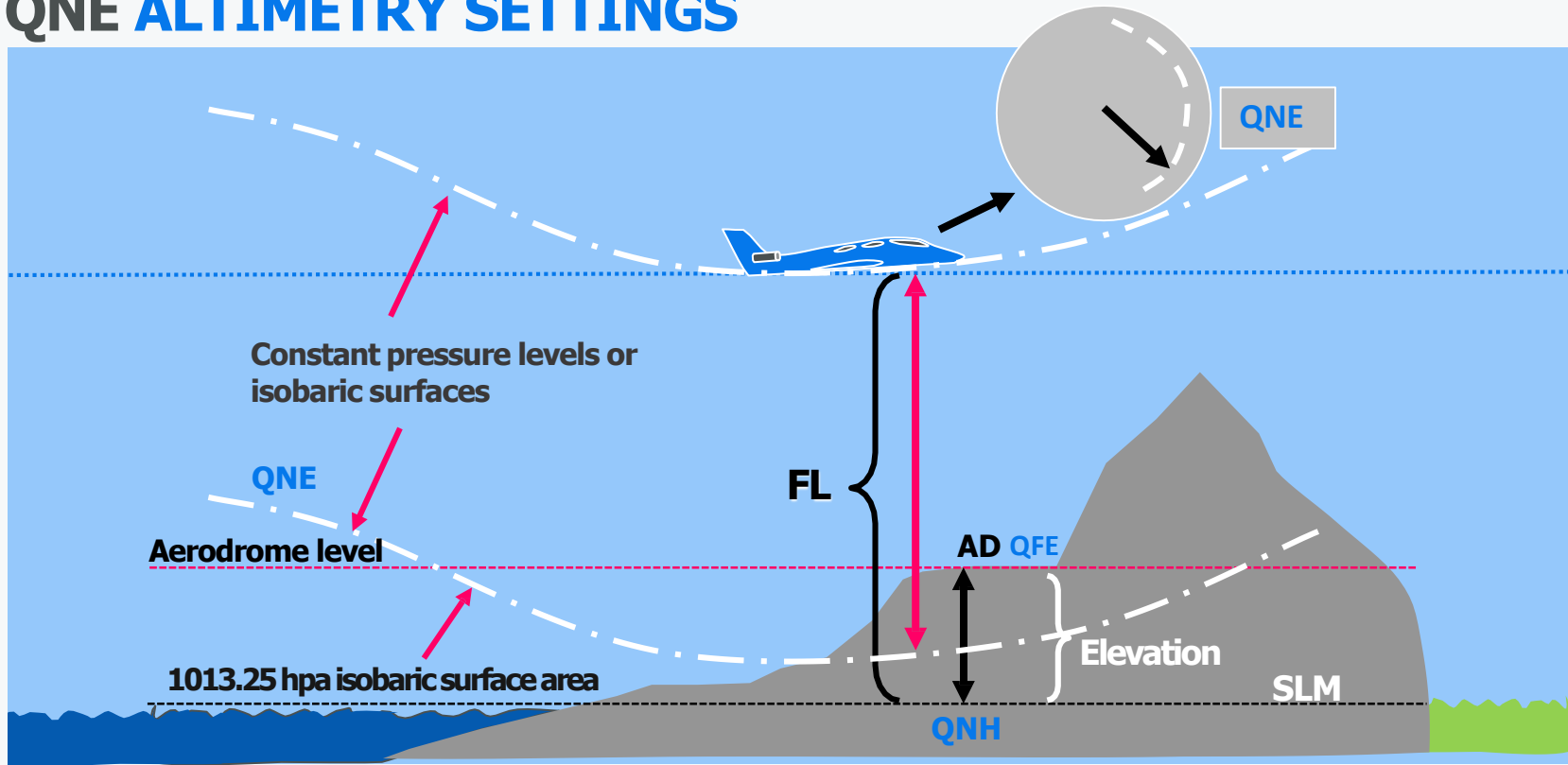
QFE ALTIMETRY SETTINGS



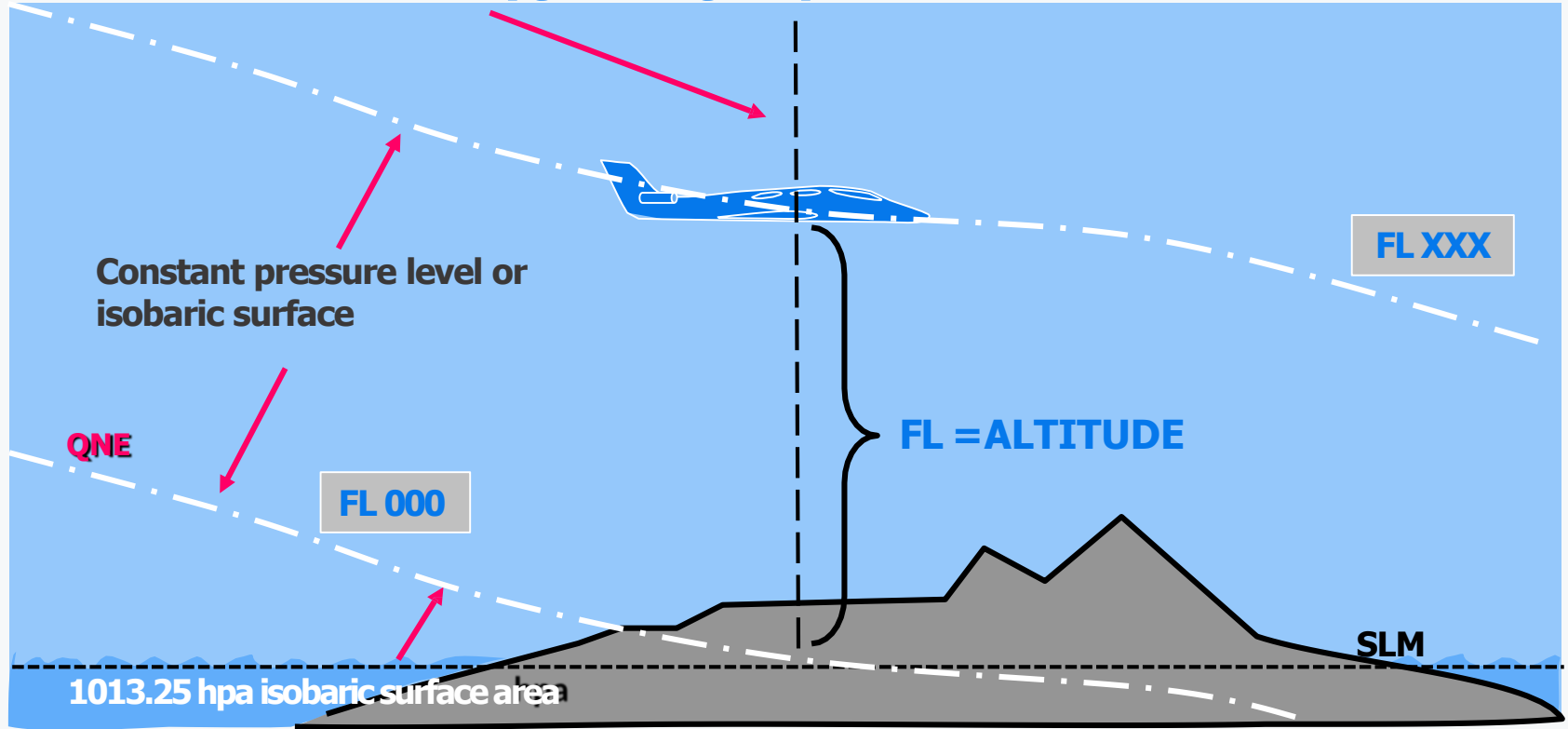
QNH ALTIMETRY SETTINGS



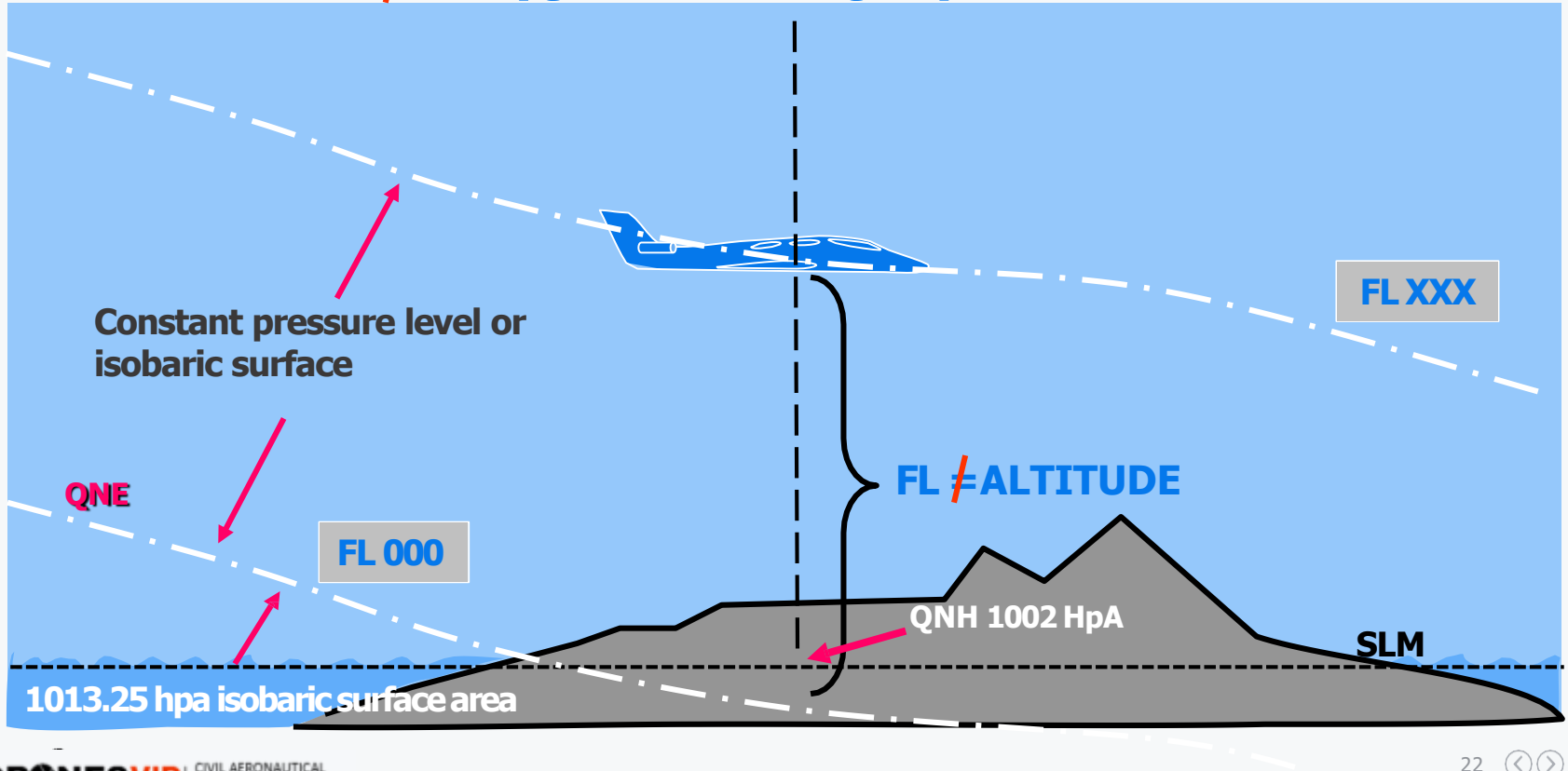
QNE ALTIMETRY SETTINGS



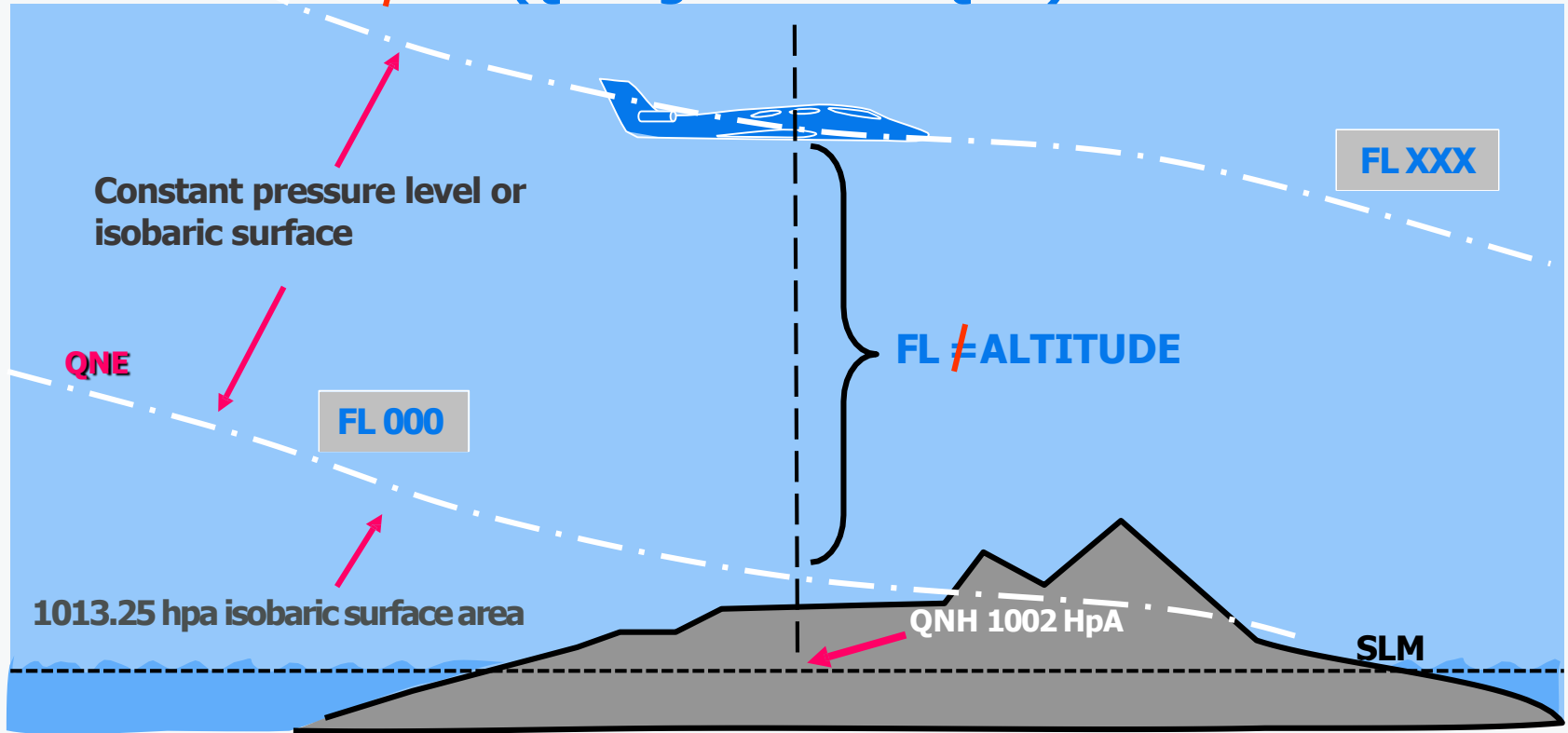
CONDITIONS = ISA (QNE = QNH)



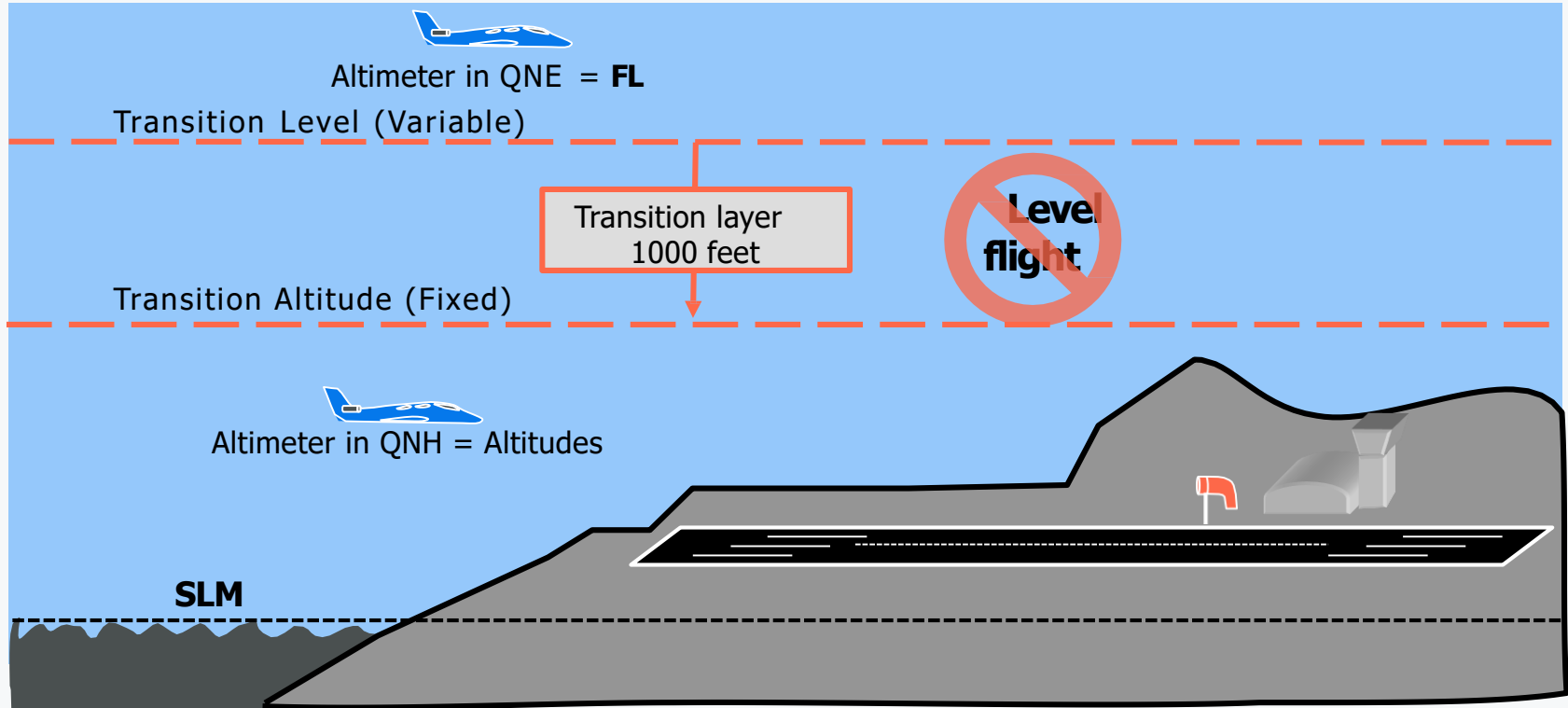
CONDITIONS \neq ISA (QNH less than QNE)



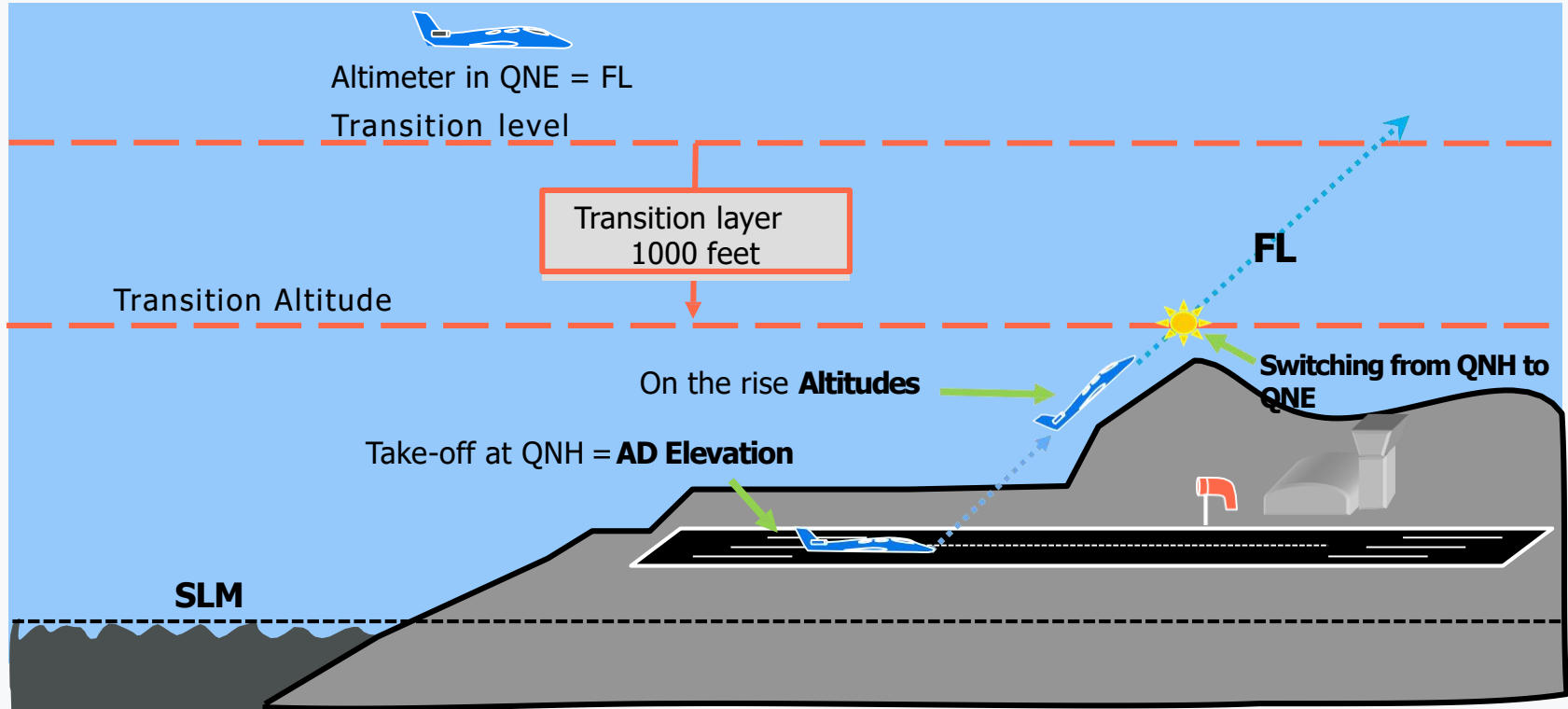
CONDITIONS \neq ISA (QNH greater than QNE)



USE OF THE DIFFERENT ALTIMETER SETTINGS



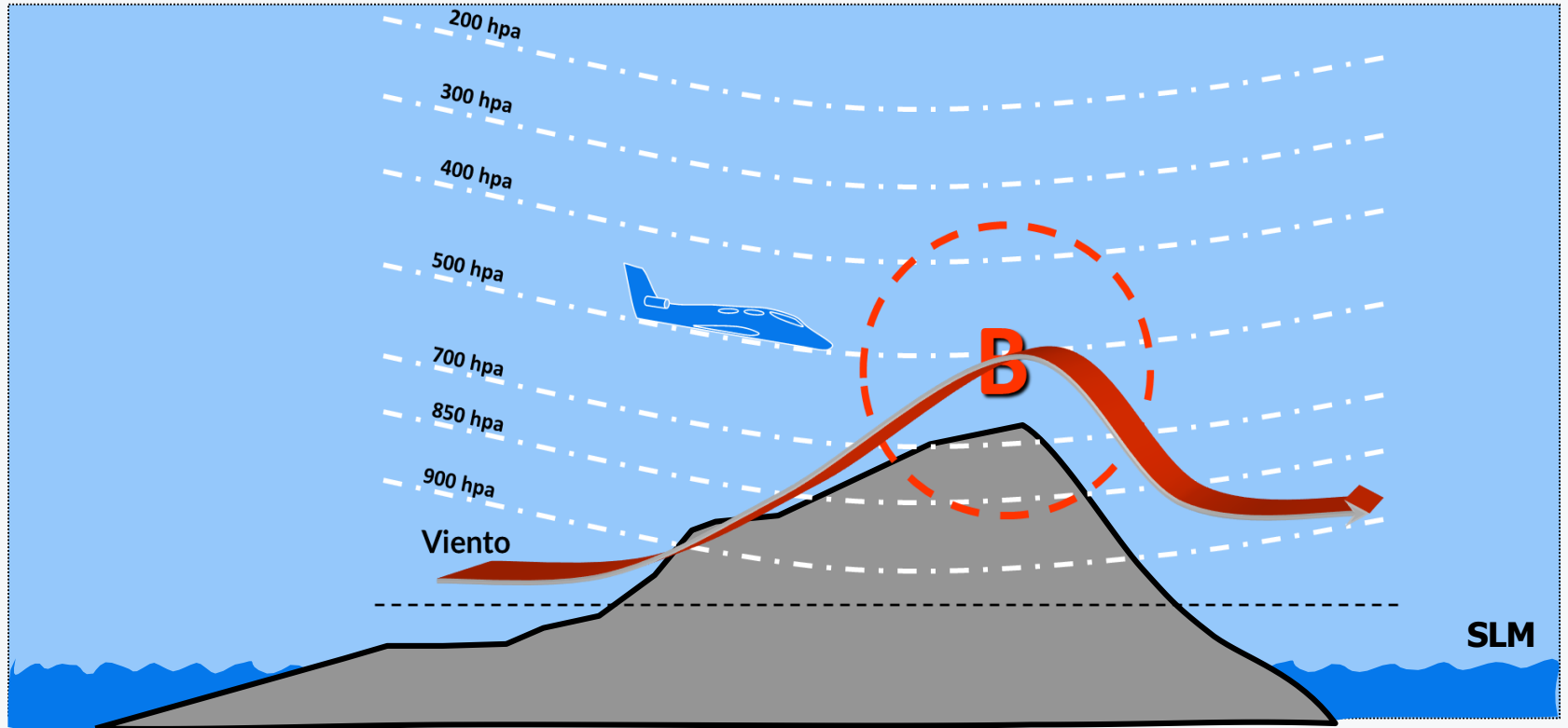
USE OF THE DIFFERENT ALTIMETER SETTINGS



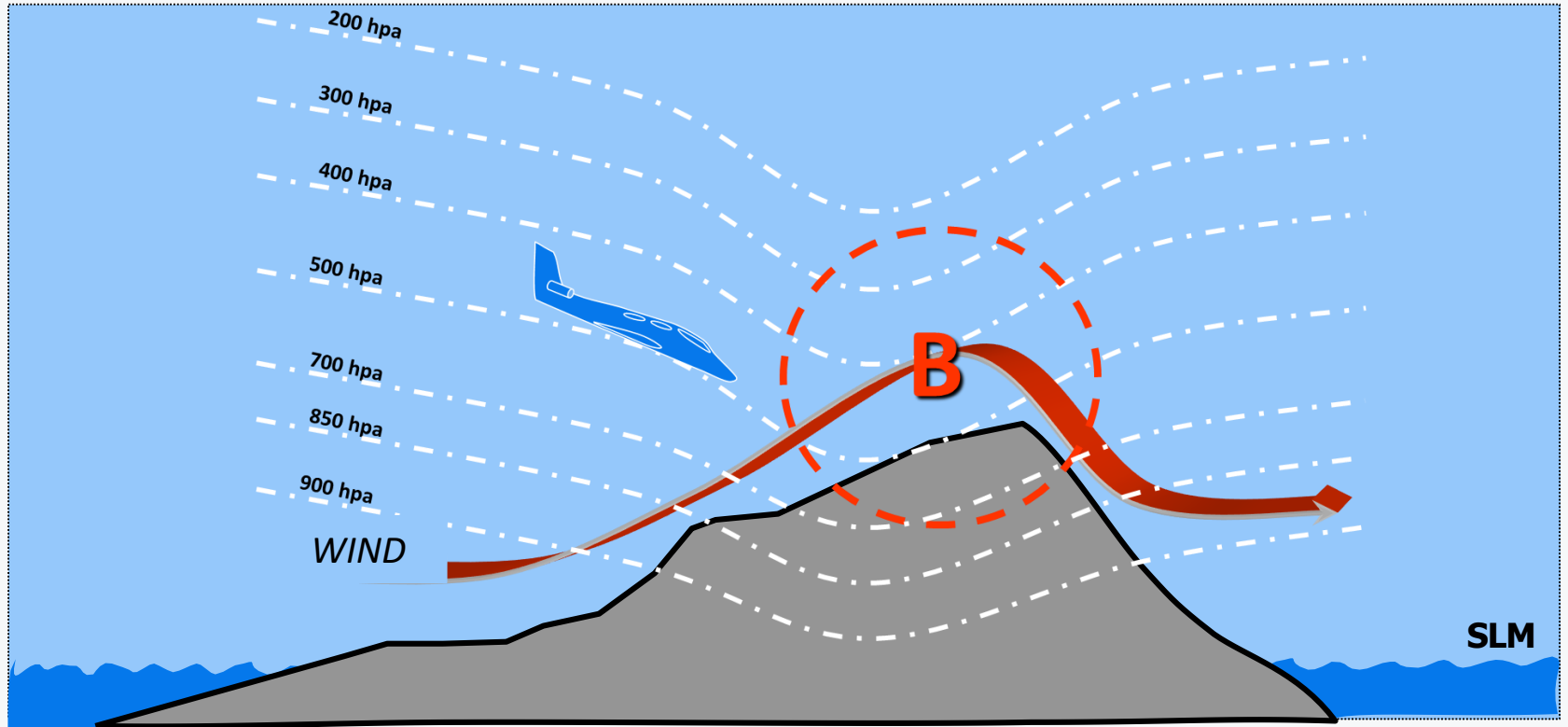
ALTIMETRIC ERRORS

The background of the slide is a colorful aerial topographic map. The colors represent elevation, with dark blues and greens indicating lower elevations and yellow, orange, and red indicating higher elevations. The map shows a complex terrain with various peaks and valleys.

BY BASE PRESSURE OR AERODYNAMIC EFFECT

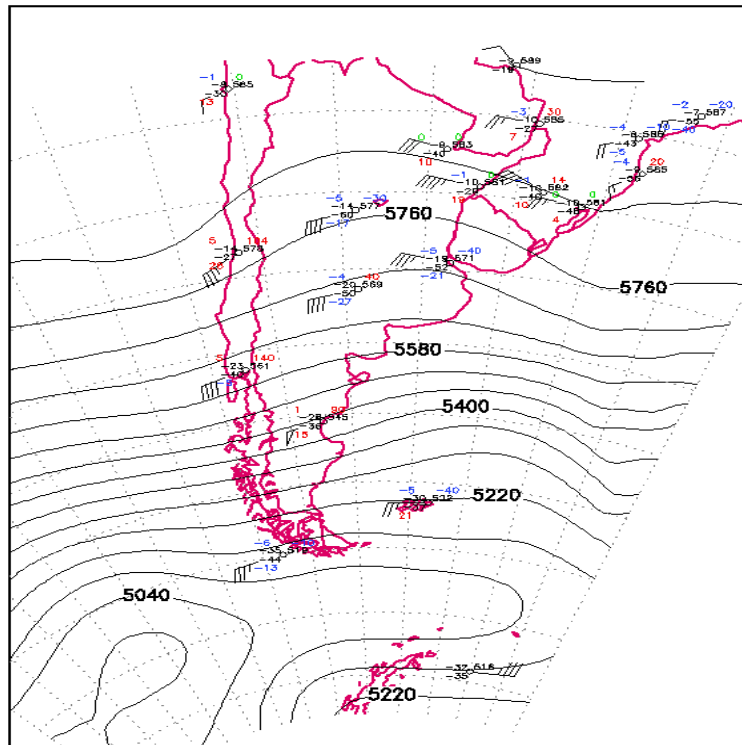


BY BASE PRESSURE OR AERODYNAMIC EFFECT



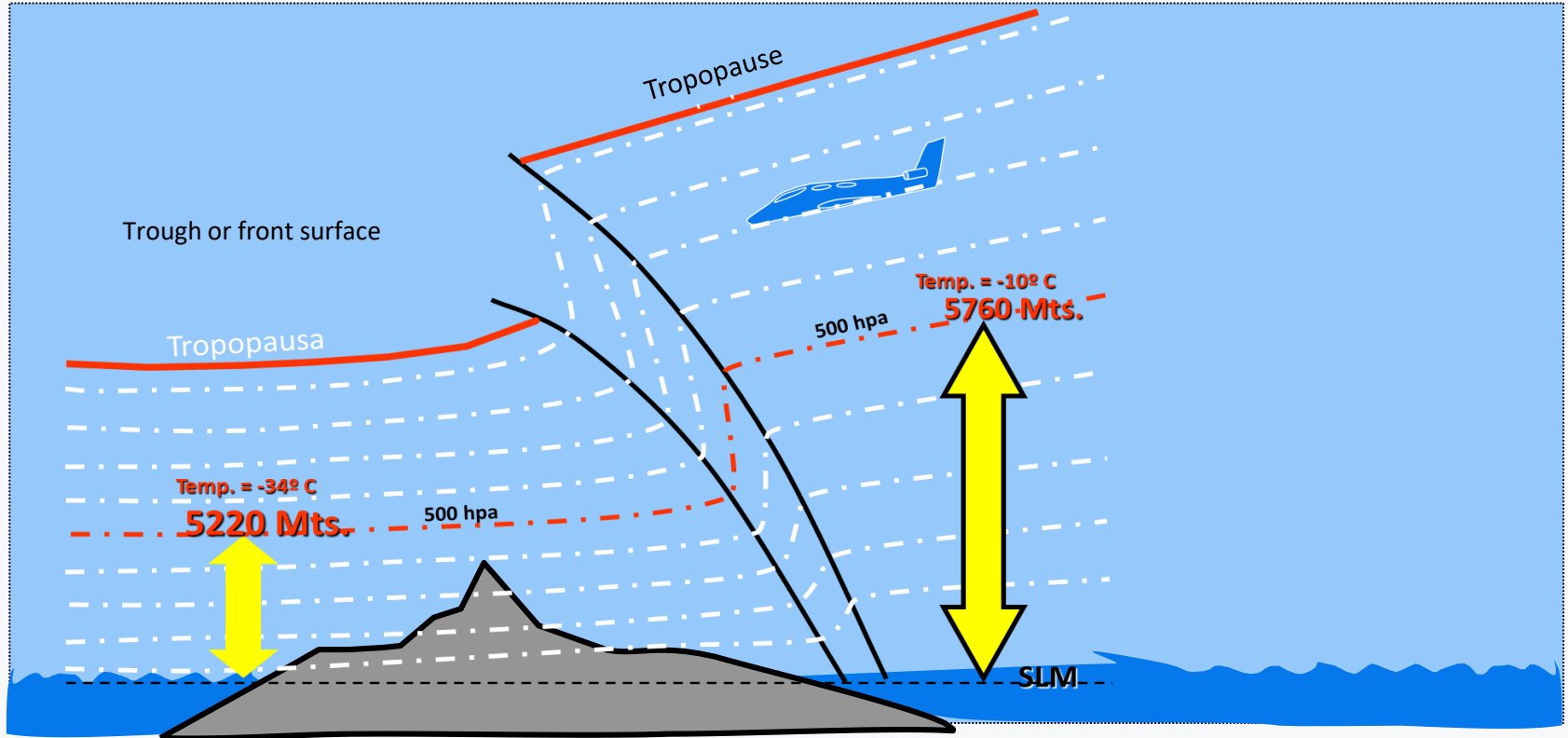
BY TEMPERATURE

ANALISIS DE 500 HPA DE 12 UTC DEL 7/10/2006



SERVICIO METEOROLOGICO NACIONAL CMRE BUENOS AIRES

BY TEMPERATURE



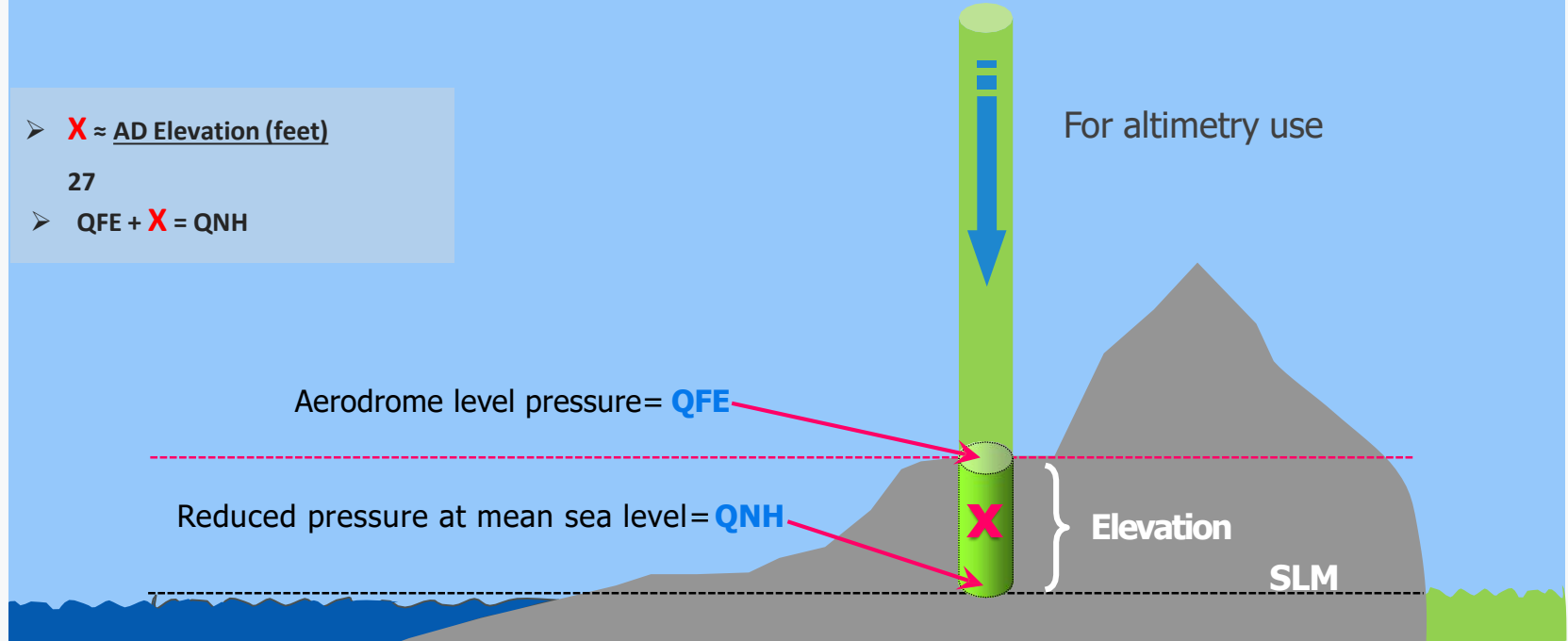
ATMOSPHERIC PRESSURE MEASUREMENT

REDUCTION OF ATMOSPHERIC PRESSURE AT MEAN SEA LEVEL "QNH"

➤ $X \approx$ AD Elevation (feet)

27

➤ $QFE + X = QNH$



QUESTION TIME!