

Full Earth's System Interactions

PRIMARY COSMIC DRIVERS (ENERGY INPUT 100%)

≈95.5%

H₂O ENTHALPY MEDIATOR

ARTIFICIAL

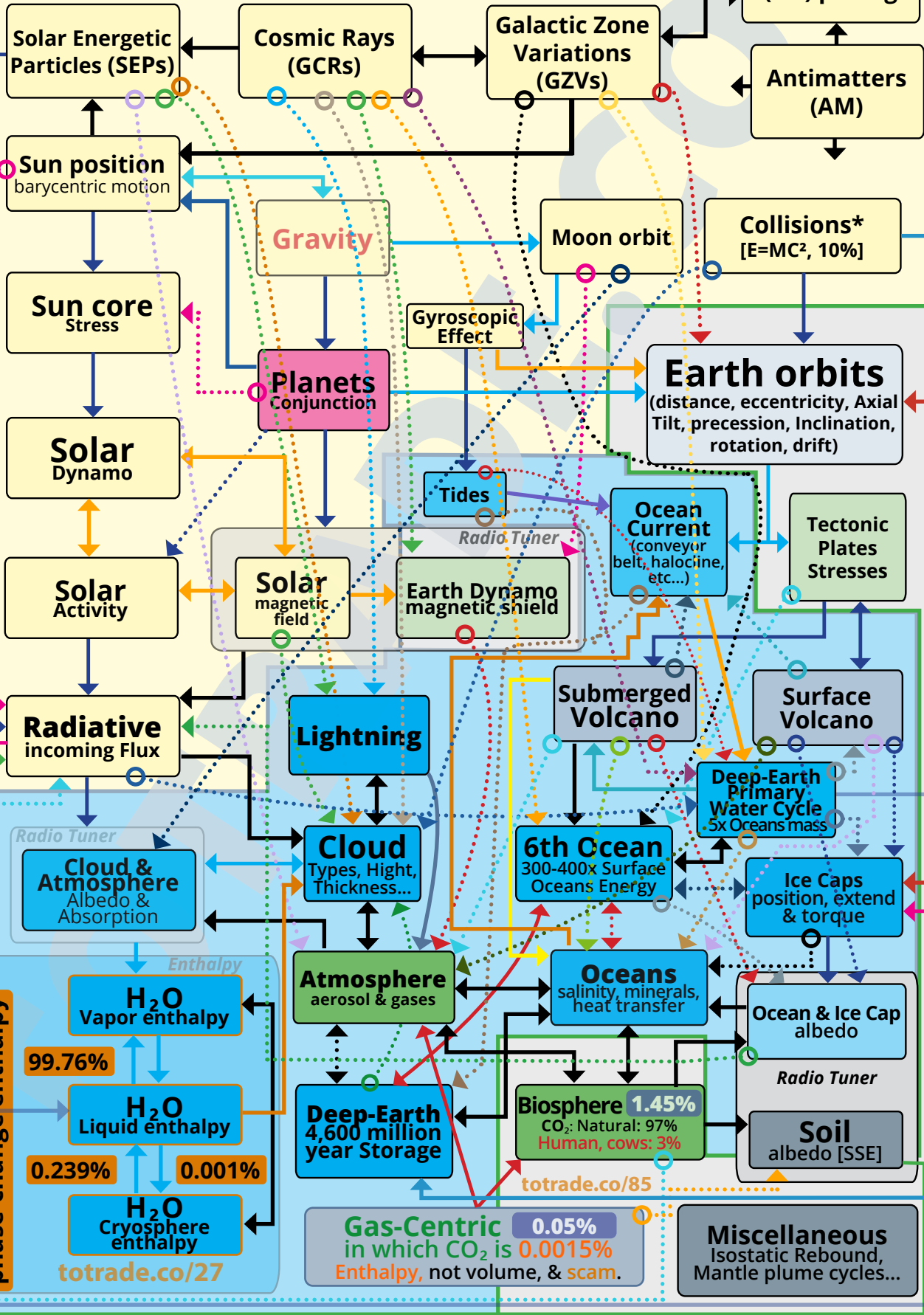
VENUS

MARS

MOON DYNAMICS

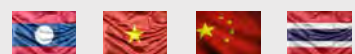
≈3.00%

SOLID STATE ENTHALPY (SSE)



* Include impacts from asteroids, meteoroids, cometary fragments, and any macroscopic and subatomic mass.

Legend: —> Solid = Direct, ○...> Dotted = Indirect



~100 km Kármán line: ~0.000 000 1 atm

Weather is Driven By **Clausius-Clapeyron** Relation

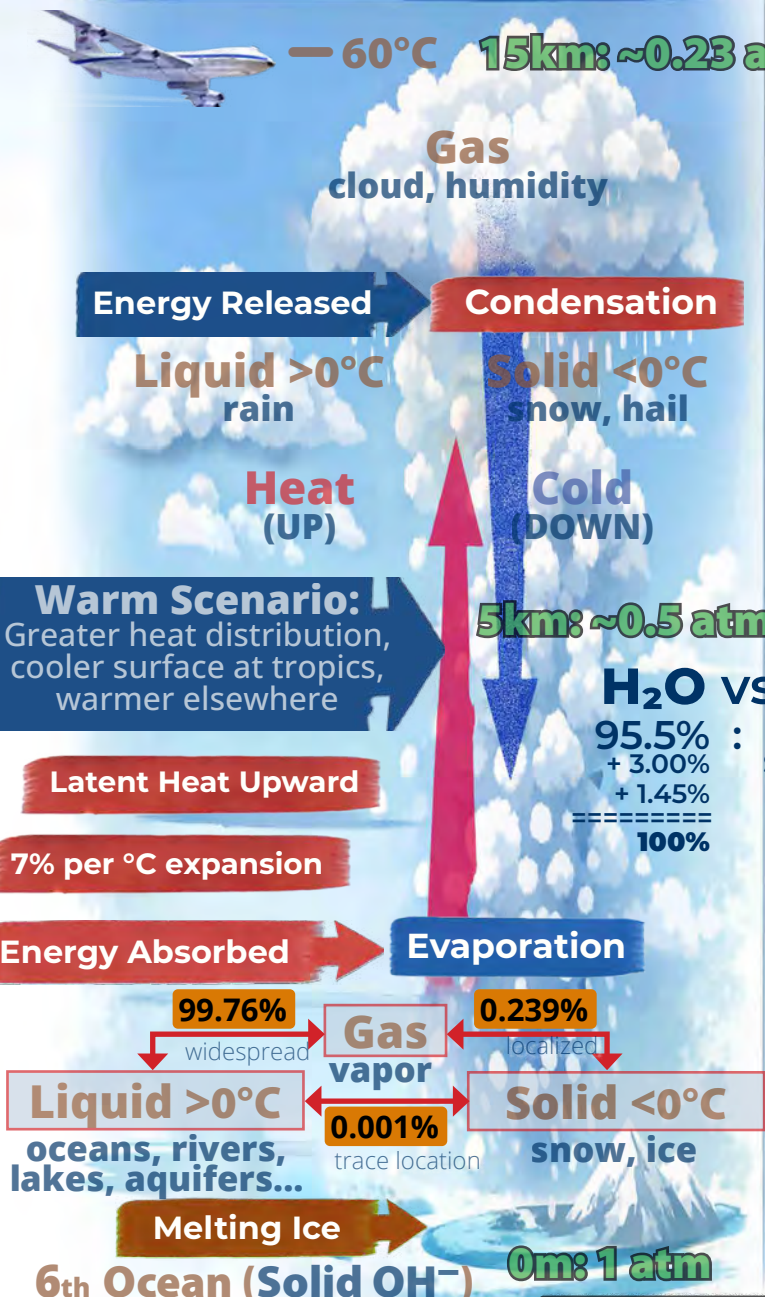


$$H = U + pV$$

Enthalpy = Internal Energy + Expansion Work

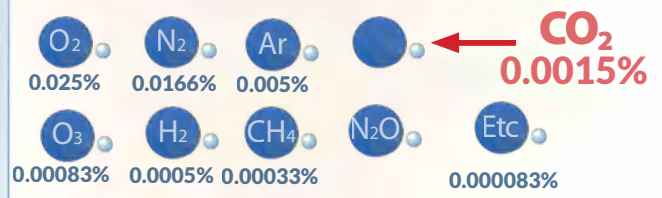
Water's Behavior in the Atmosphere

Other Gases' Behavior in the Atmosphere



No Phase Change

% = Thermal Influence, not volume.



Small Expansion Work



Sensible Heat Only

Limited Energy Transfer (sensible 20/80 latent)

H₂O vs Other Gases

95.5% : 0.05%
 + 3.00% Solid State Enthalpy (SSE)
 + 1.45% Biosphere Mix
 =====
 100%

Outcome



Thermal Buffer Only

Limited Enthalpy Transfer (other gases: 0.05%)

H₂O: Thermal Elevator



6th Ocean (Solid OH⁻)
 230,000 atm, 1600-1900°C
 ~300-400 times Surface Enthalpy
 Phase change on standby, totrade.co/6

ATMOSPHERE VOLUME

N ₂	~ 78%
O ₂	~ 21%
Ar	~ 0.93%
H ₂ O (Variable)	up to 4%
CO ₂	~ 0.04%

H₂O vs CO₂
600,000 : 1

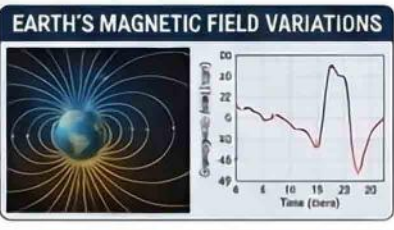
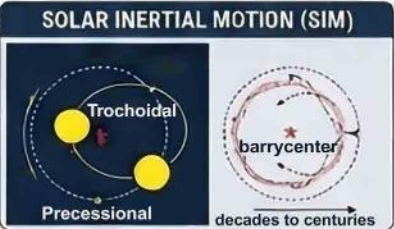
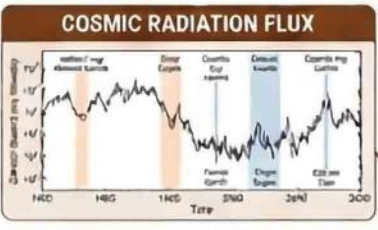
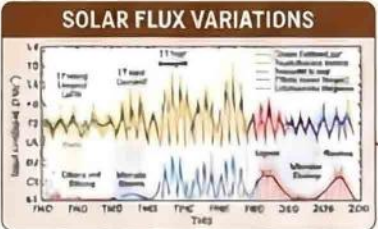
OCEAN MASS
 Water (H₂O) > 96.5%
 CO₂ < 0.002%

Below sea avg Pressure
 -11km: 1,100 atm, Mantle: 230,000 atm

EARTH SYSTEMS

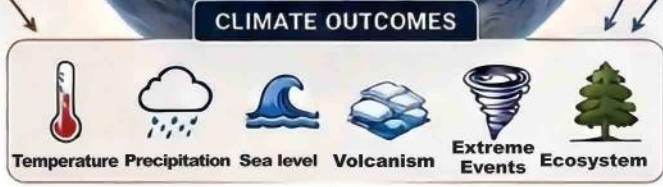
DRIVERS • MEDIATORS • RESISTORS • INTERACTIONS • FEEDBACKS

MAJOR DRIVERS



PLANETARY RESISTORS & CAPACITORS

- Deep Ocean Heat Storage
- Rock Weathering & Chemical Buffering (CIEP, MIAAB), Mn_2O_3 → AUED₂
- Hydrocarbons Soil Organic Matters Accumulation & removal
- Long-Term Forest Biomass Storage or desertification

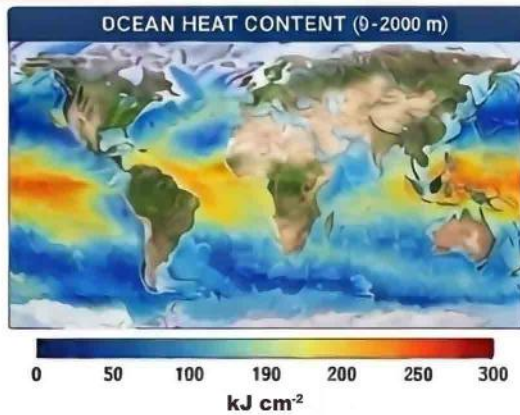
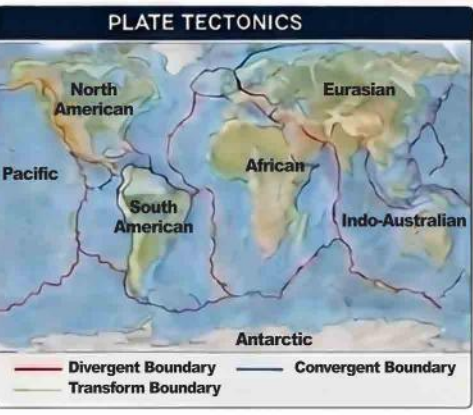


OCEANIC MEDIATORS

- Ocean Circulation (e.g., Thermohaline)
- Ocean Heat Storage & Transport via phase change
- Sea Ice Cover
- Ocean Acidification & Carbon Cycle: CO_2 0.0015% thermal, pH
- Ocean Biogeochemistry Marine Ecosystems

DEEP-EARTH INFLUENCES

31,800,000,000 TW
Deep-Earth 4.6 billion years Heat Storage



TIME SCALES OF INFLUENCE

