

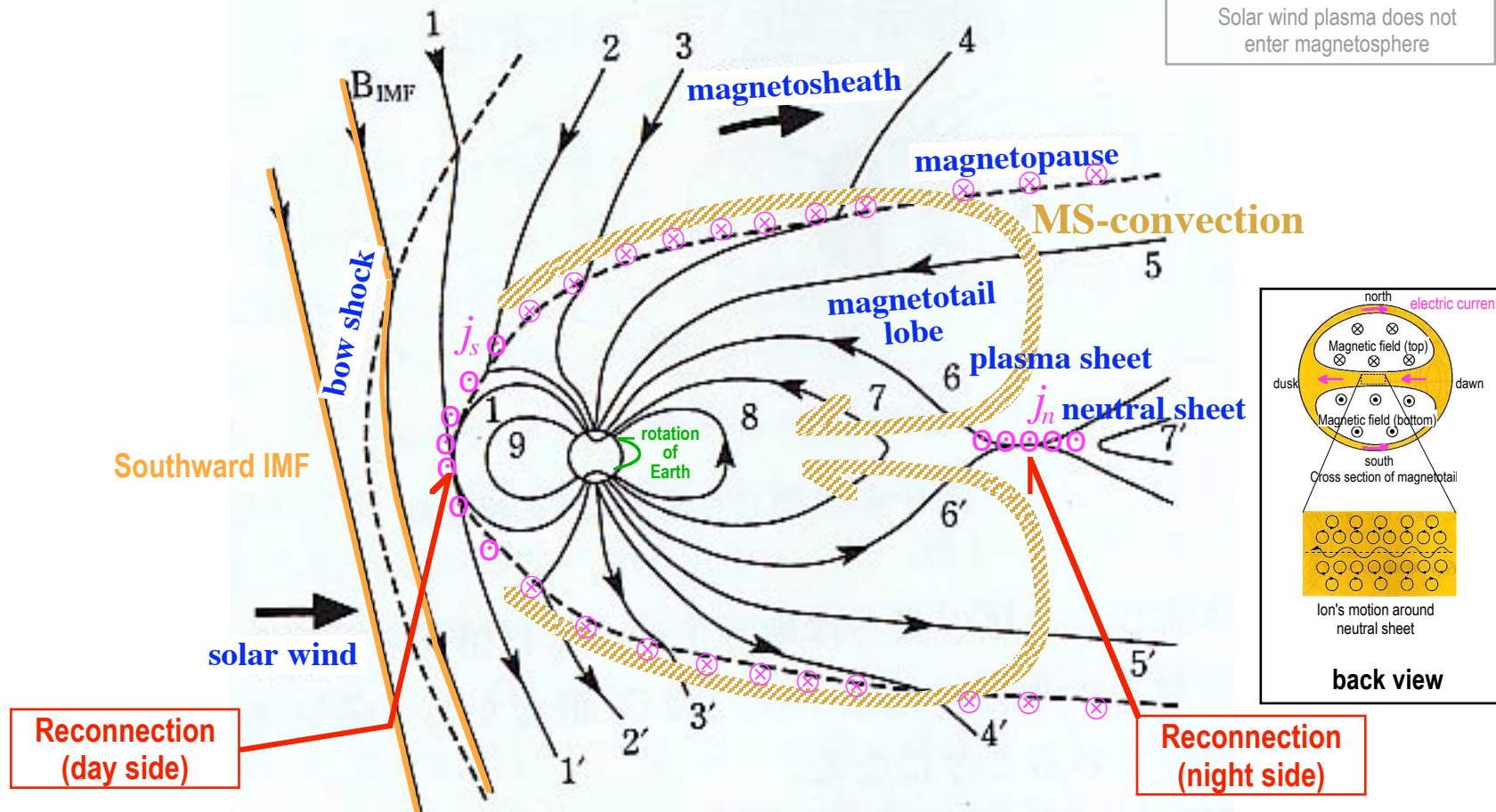
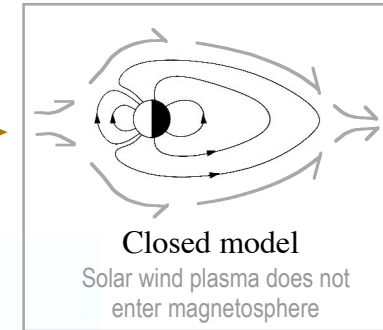
Injection of solar wind plasma into  
magnetosphere

**Explosive injection** of solar wind plasma into magnetosphere via **reconnection** & **convection** of **southward IMF** frozen in the SW plasma

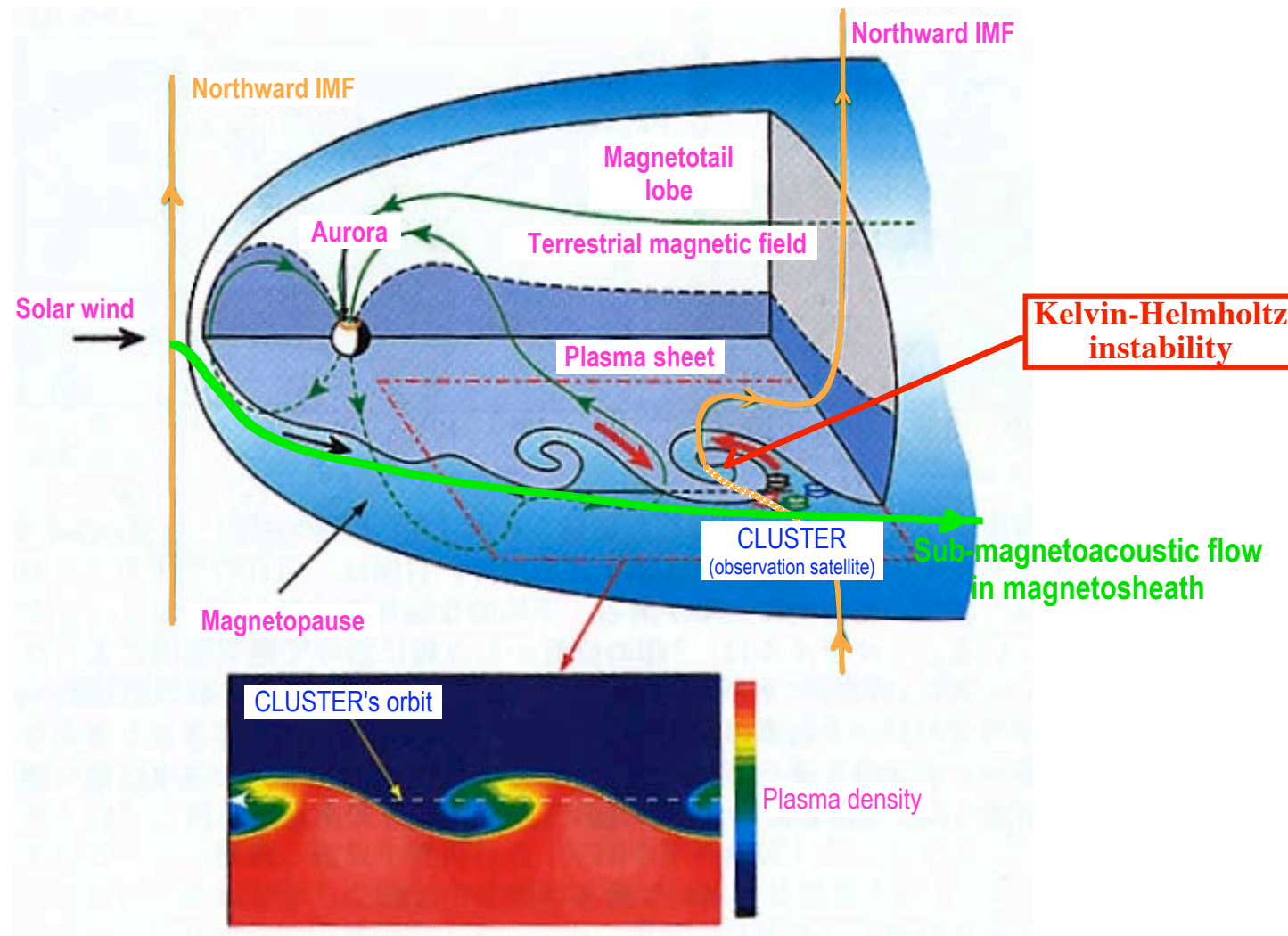
**Dungey's convection model**

1 (reconnection) → 2 → 3 → 4 → 5 → 6 (reconnection) → 7 → 8 (rotation) → 9 (supply)

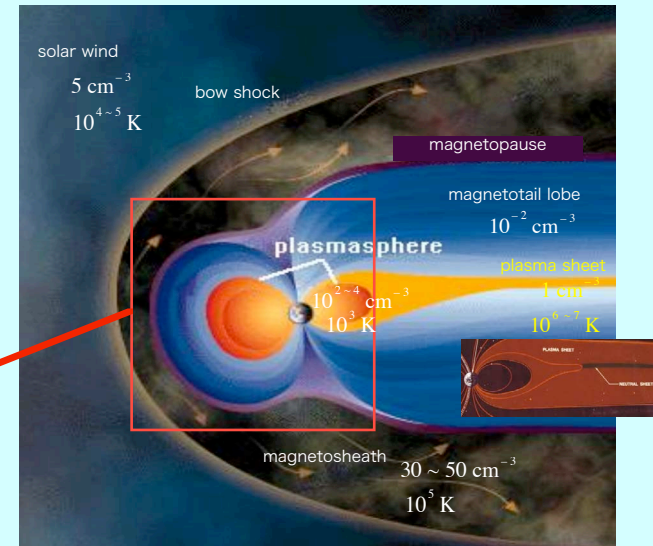
magnetotail lobe      plasma sheet      plasmashpere



**Non-explosive injection** of solar wind plasma into magnetosphere via **Kelvin-Helmholtz instability** at magnetopause



## Polar cap & polar cusp



**plasmasphere...** inner magnetosphere where reconnected magnetic fields are distributed

**plasma sheet...** magnetotail lobe compressed via MS-convection

**Polar cap**

Terrestrial field lines connected to IMF lines

**Polar cusp**

Neutral point => magnetosheath (SW) plasma can make a direct access to **ionosphere**