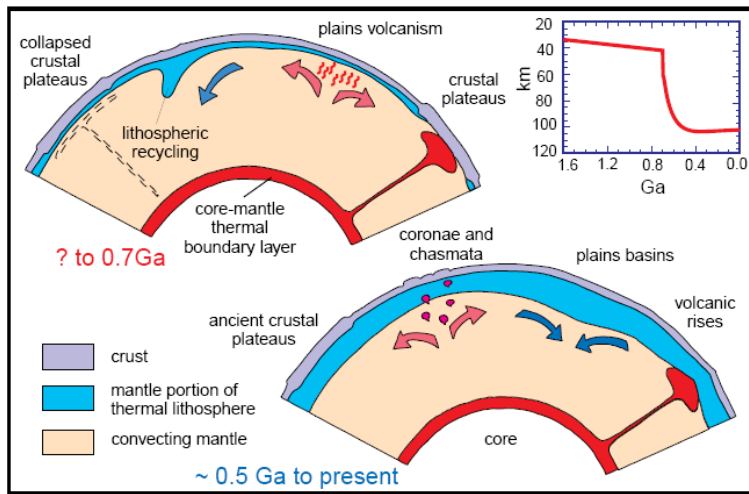
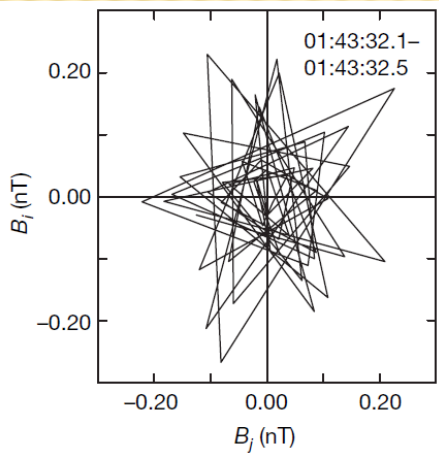


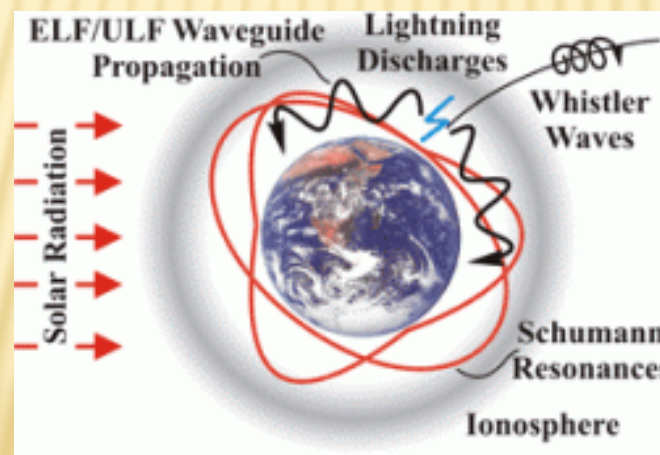
ELECTROMAGNETIC SOUNDING OF THE LITHOSPHERE OF VENUS FROM A BALLOON



- ✘ Thickness of the lithosphere controls geodynamics.
- ✘ Measure with
 - + Heat Flow
 - + Seismology
 - + Electromagnetic Sounding
 - ✘ Grimm et al., *Icarus*, 217, 462, 2012.



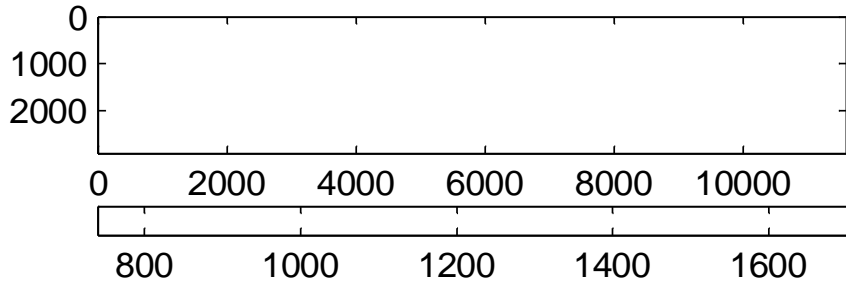
Russell et al.



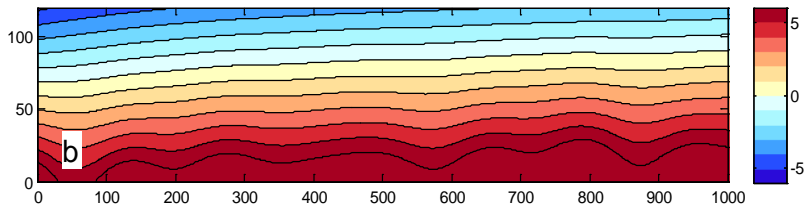
- ✘ Lightning exists on Venus
- ✘ Schumann resonances will be global and continuous
- ✘ 10-40 Hz waves penetrate 10-100 km.

MODELING

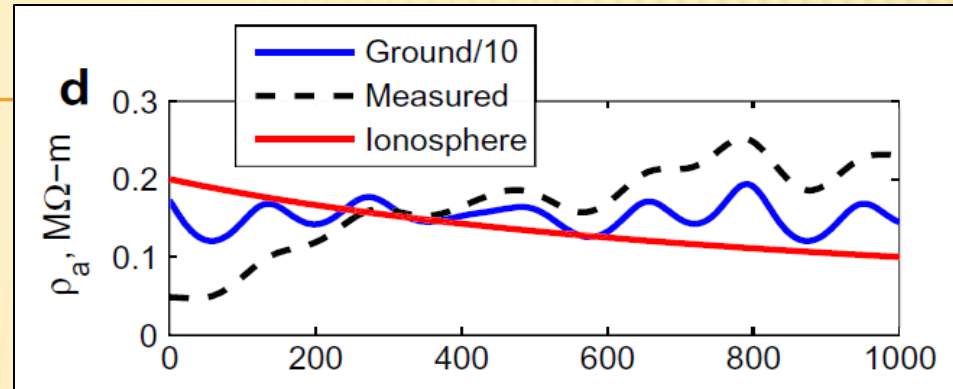
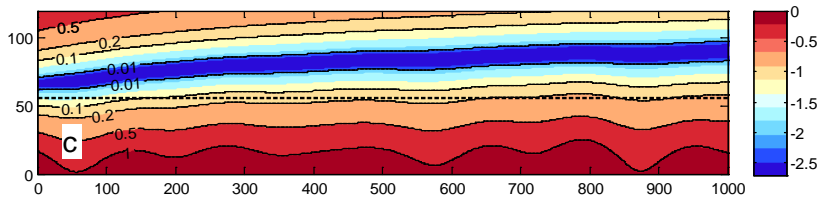
Ra = 958



Horiz E-Field, uV/m



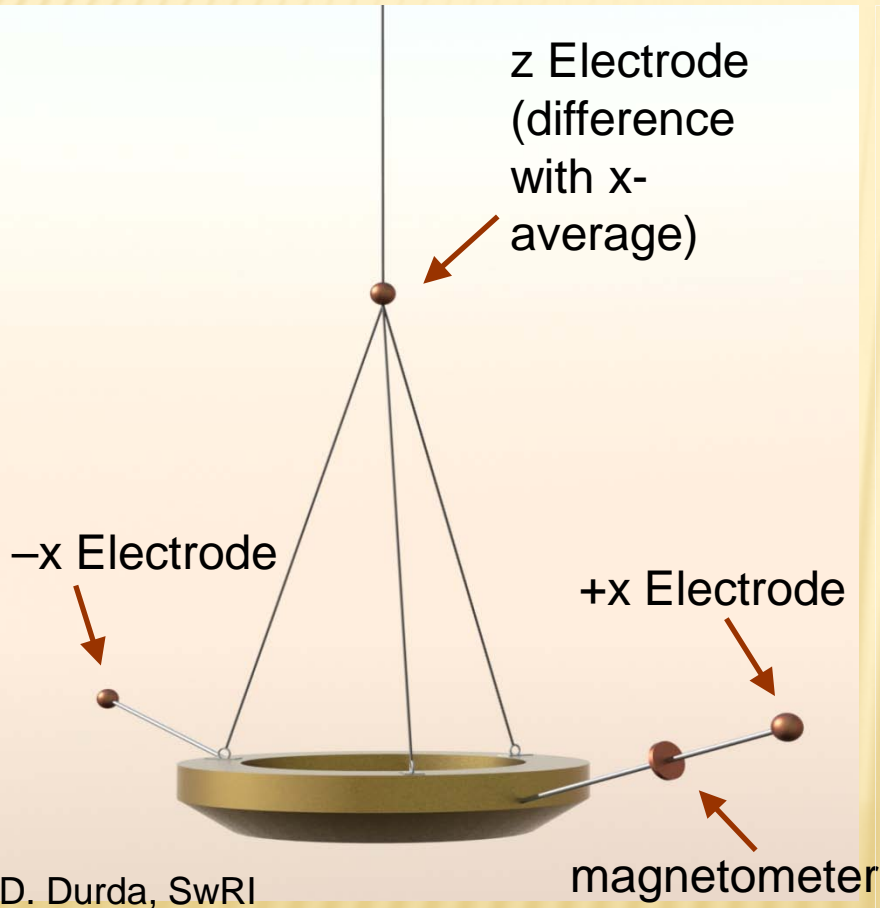
Apparent Resistivity, M Ω -m (Log₁₀ Color Bar)



- ✘ 2D temperature from interior-convection model.
- ✘ Translate to electrical conductivity
- ✘ Model response to TEM wave (Schumann resonance).
- ✘ Response tracks ground structure, modulated by ionospheric conductivity.

IMPLEMENTATION

1. Gondola (good)



2. Balloon Hull (better)

