







БЕНЕРА-9 22.10.1975

ОБРАБОТКА МГНН АН СССР 28.2.1976



БЕНЕРА-10 25.10.1975

ОБРАБОТКА МГНН АН СССР 28.2.1976

Color as seen on the surface of Venus



Color with atmospheric effects removed



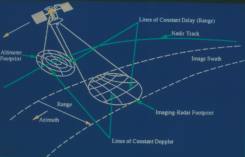
VENERA 13

# MAGELLAN MISSION TO VENUS



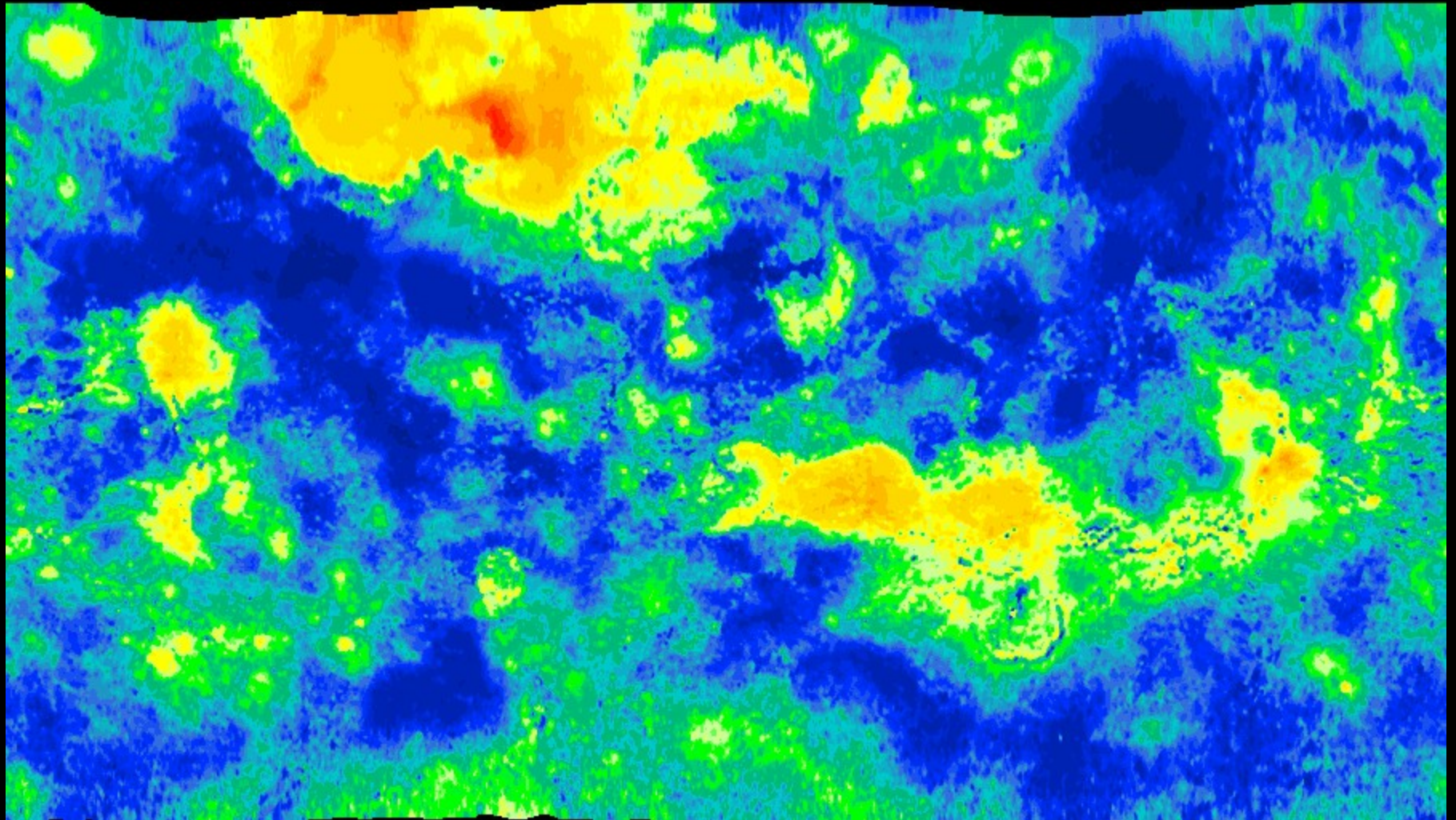
May 1989 to October 1994



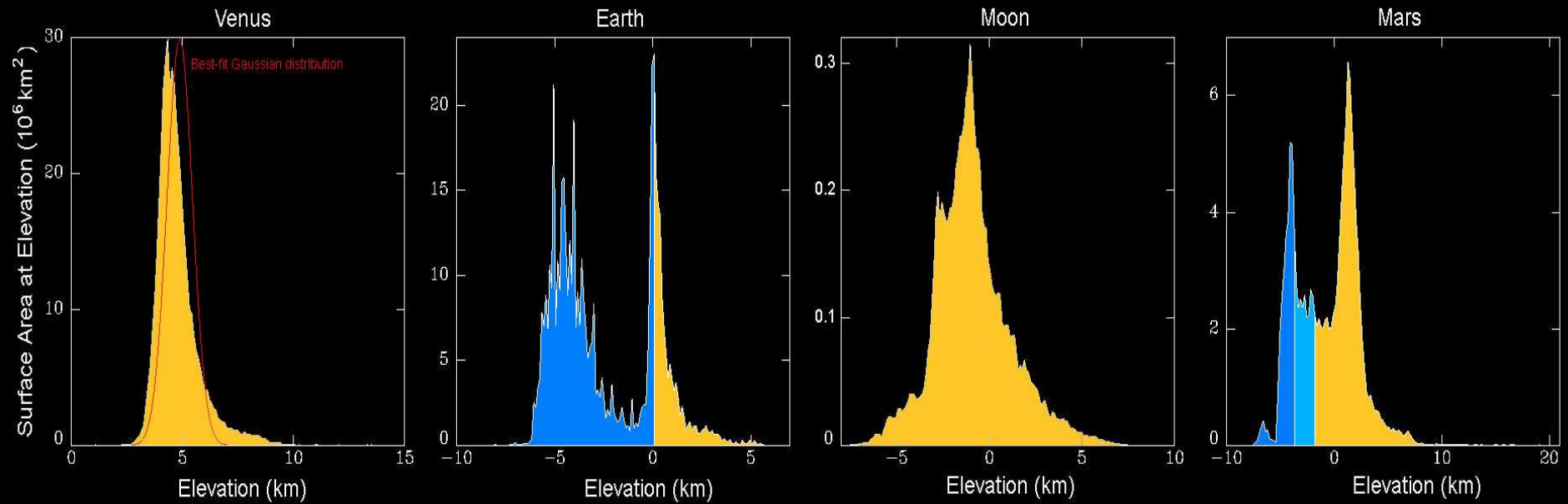




# Pioneer Venus Topography



# Inner Solar System Hypsographic Comparisons





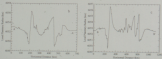
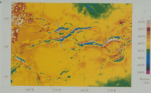


FIG. 5. (a) Dam and Dam Outlet elevation (m) versus Distance (km); (b) Topographic profile (m) versus Distance (km)

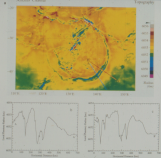
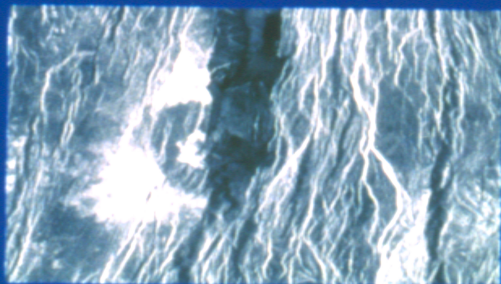
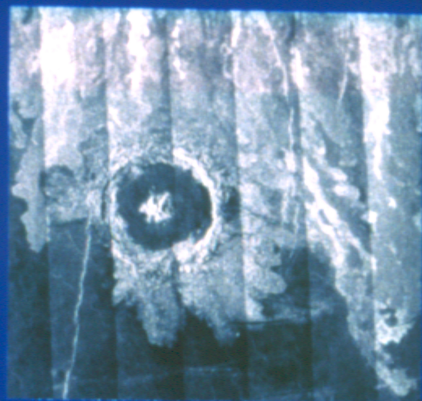
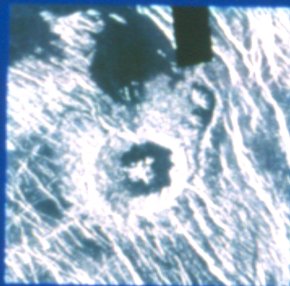
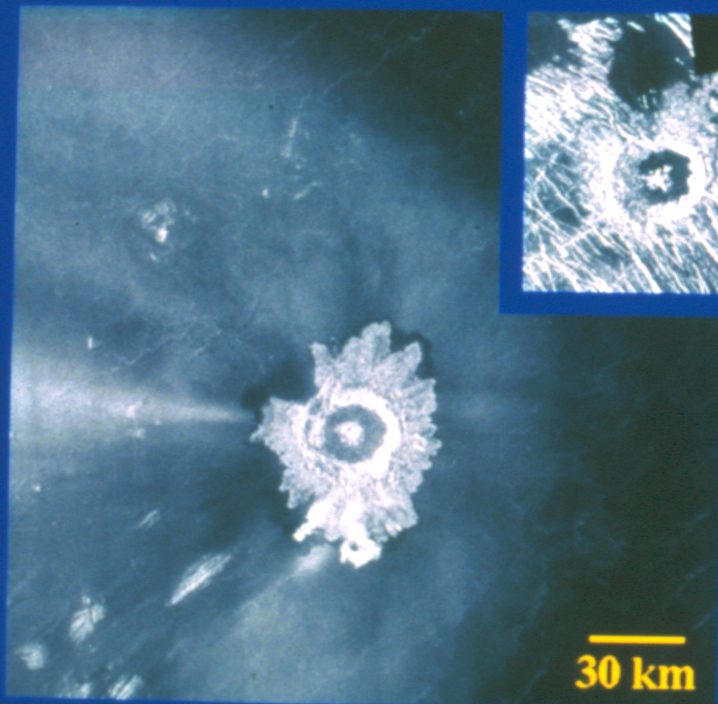
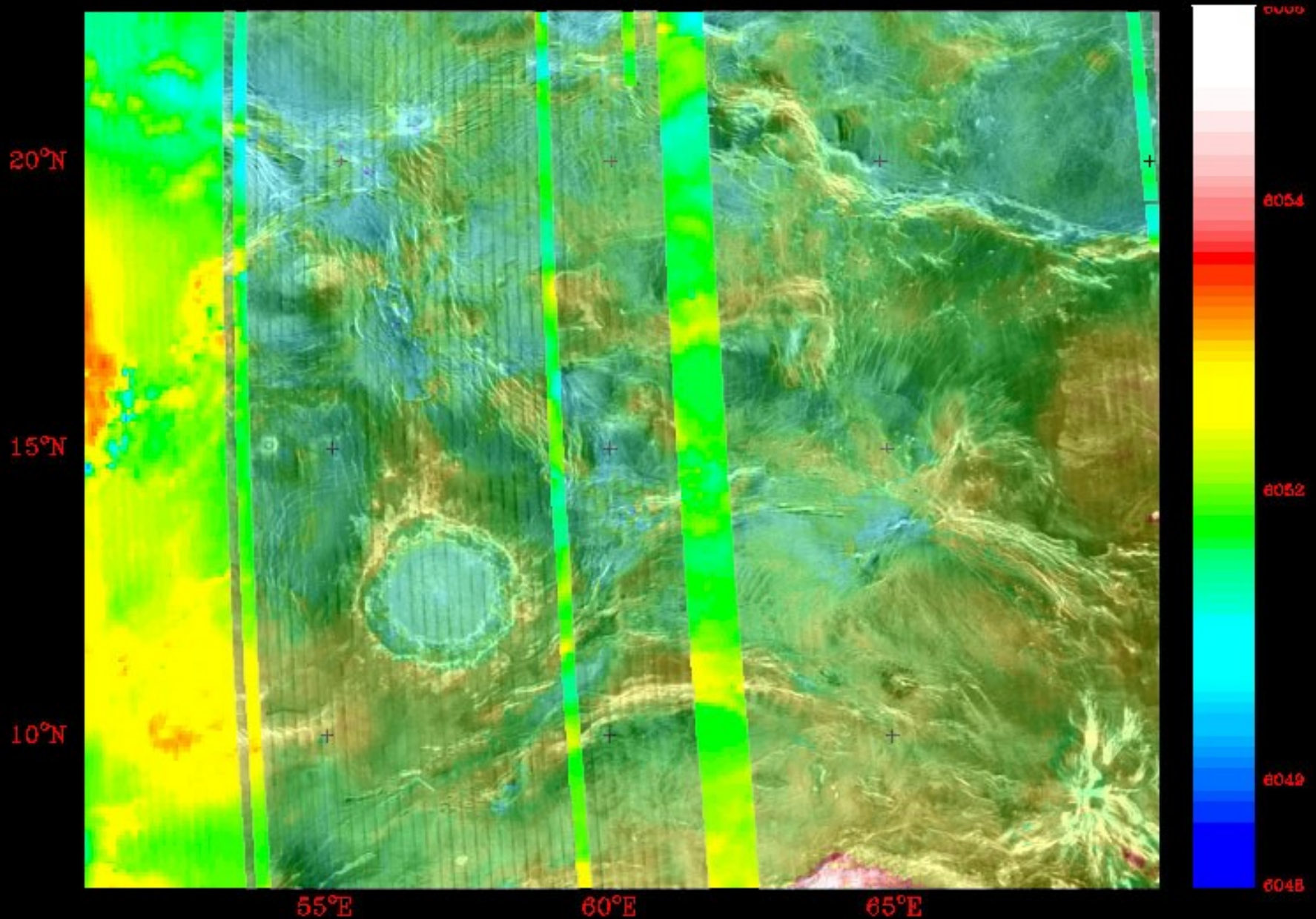


Figure 3. (a) Topographic map of the study area. (b) Cross-section of the topographic profile along line A-A'. (c) Cross-section of the topographic profile along line B-B'.



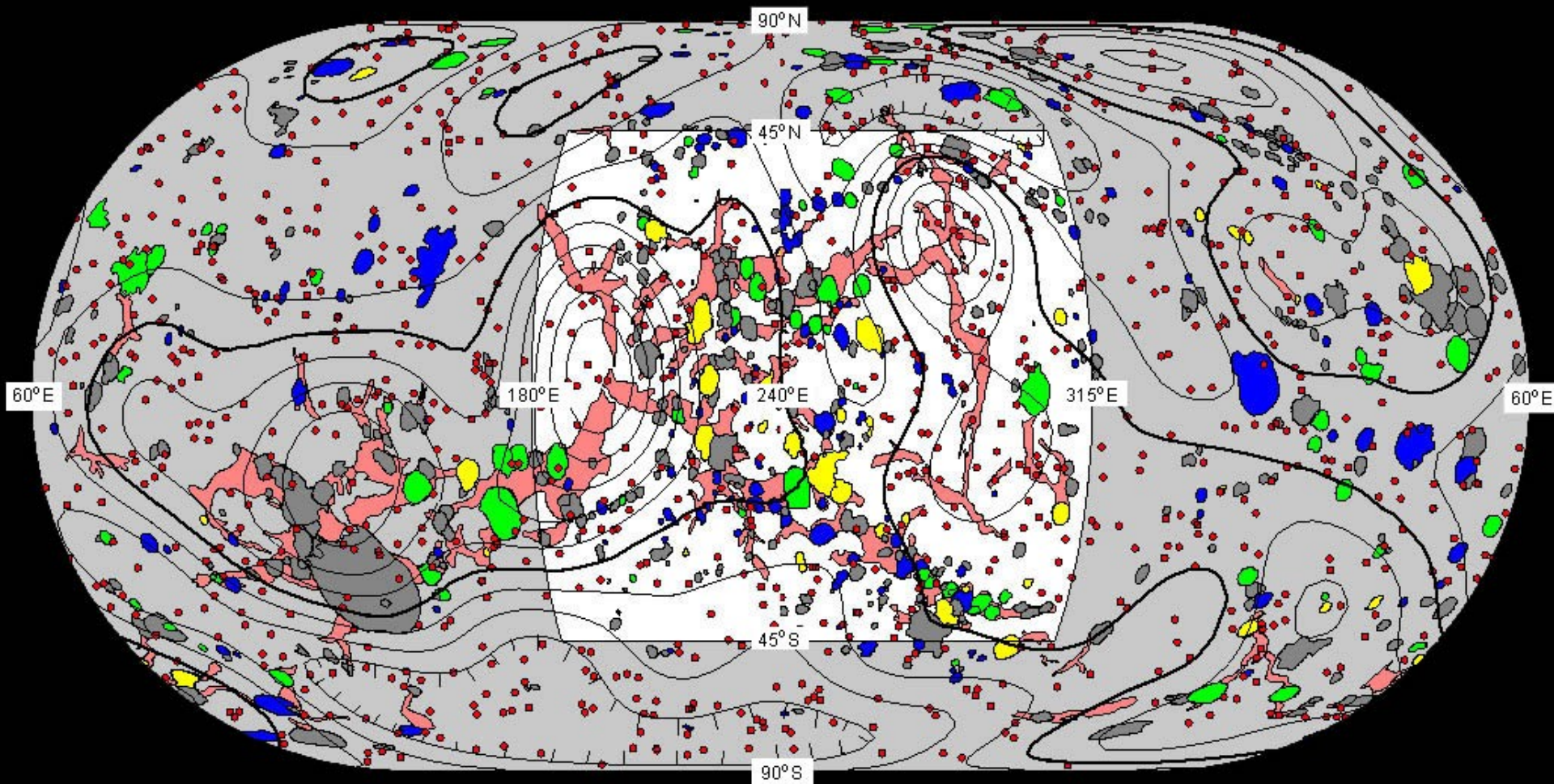


# Mead Crater – Radar and Topography

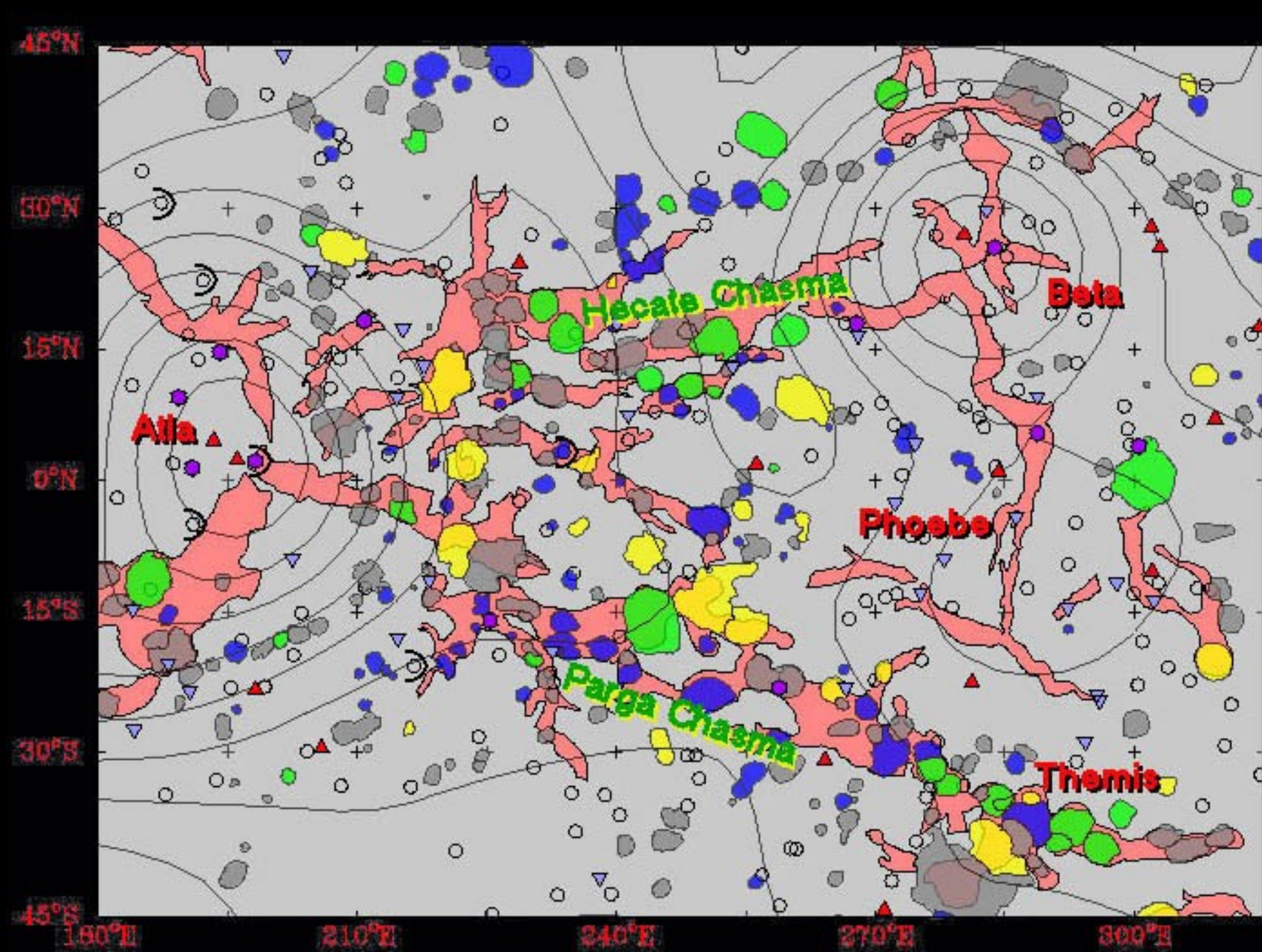




# Venus Chasmata, Coronae, Craters, and Geoid (Eckert IV projection)

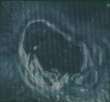




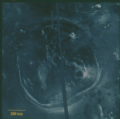




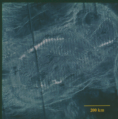
100 km



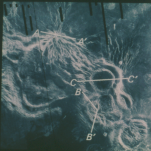
*Mag - Ø*



*Ceren*

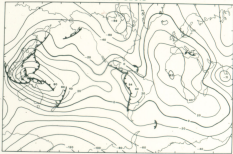




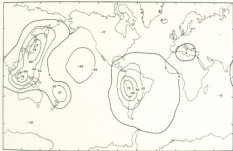




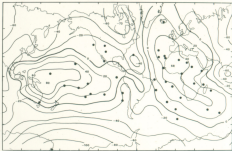
GEM 8 GEDID



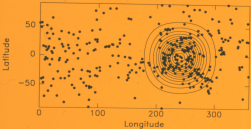
# TRENCH GEOID



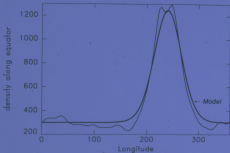
# RESIDUAL GEOID

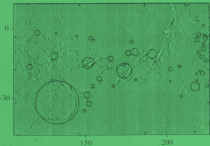


# Coronae and Gaussian Pulse



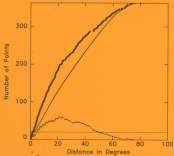
# Coronae



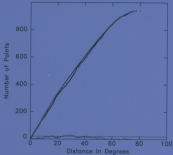


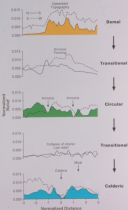


Distance from Corendon to Rift Zones



Distance from Craters to RHT Zones





Atla  
Higher  
Steeper

Beta  
Lower  
Slumped?

Strong  
Upwelling

Weakened  
Upwelling



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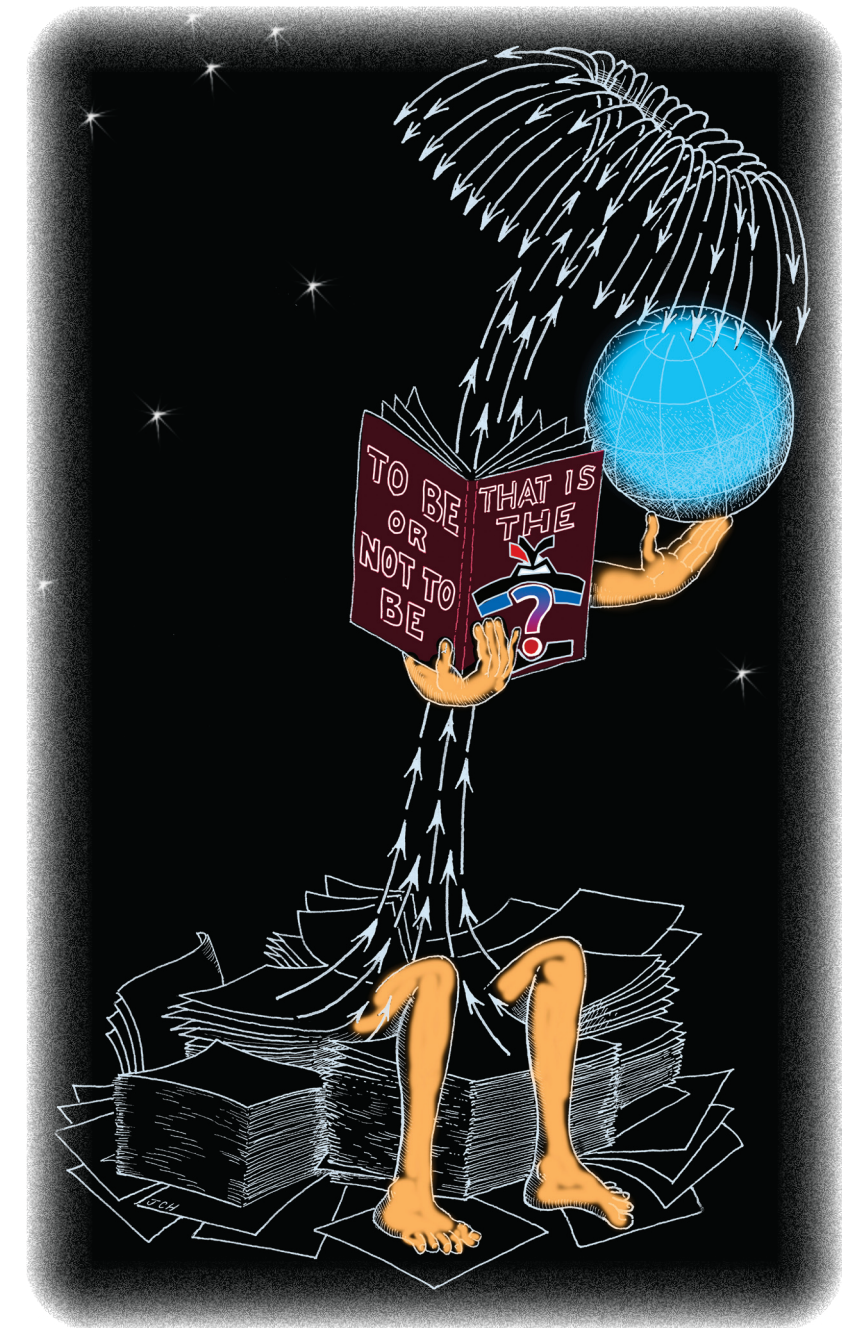
Edited  
by  
**G.R. Foulger**  
and  
**D.M. Jurdy**

# Plates, Plumes, and Planetary Processes

Special  
Paper  
430

Special Paper 430

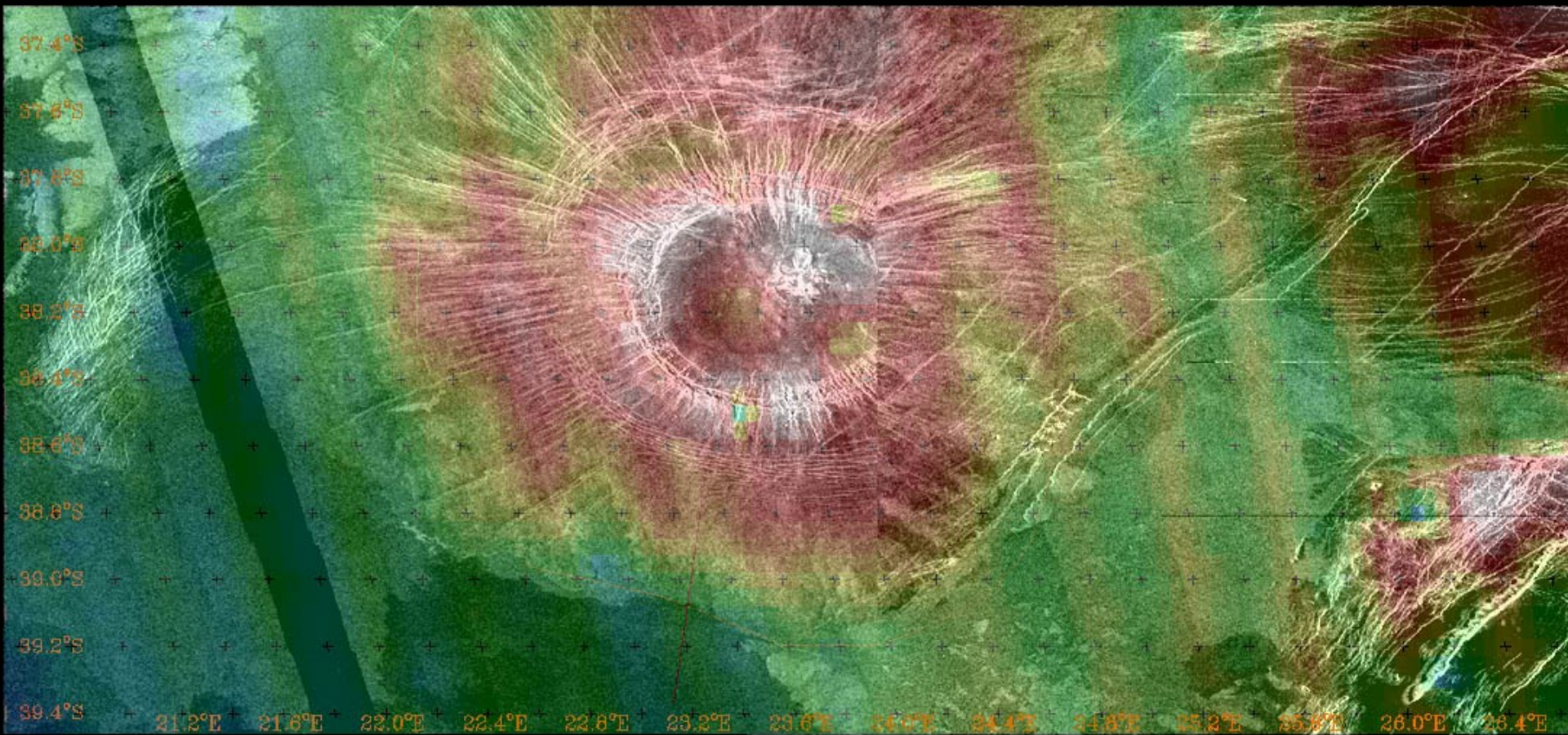
# Plates, Plumes, and Planetary Processes



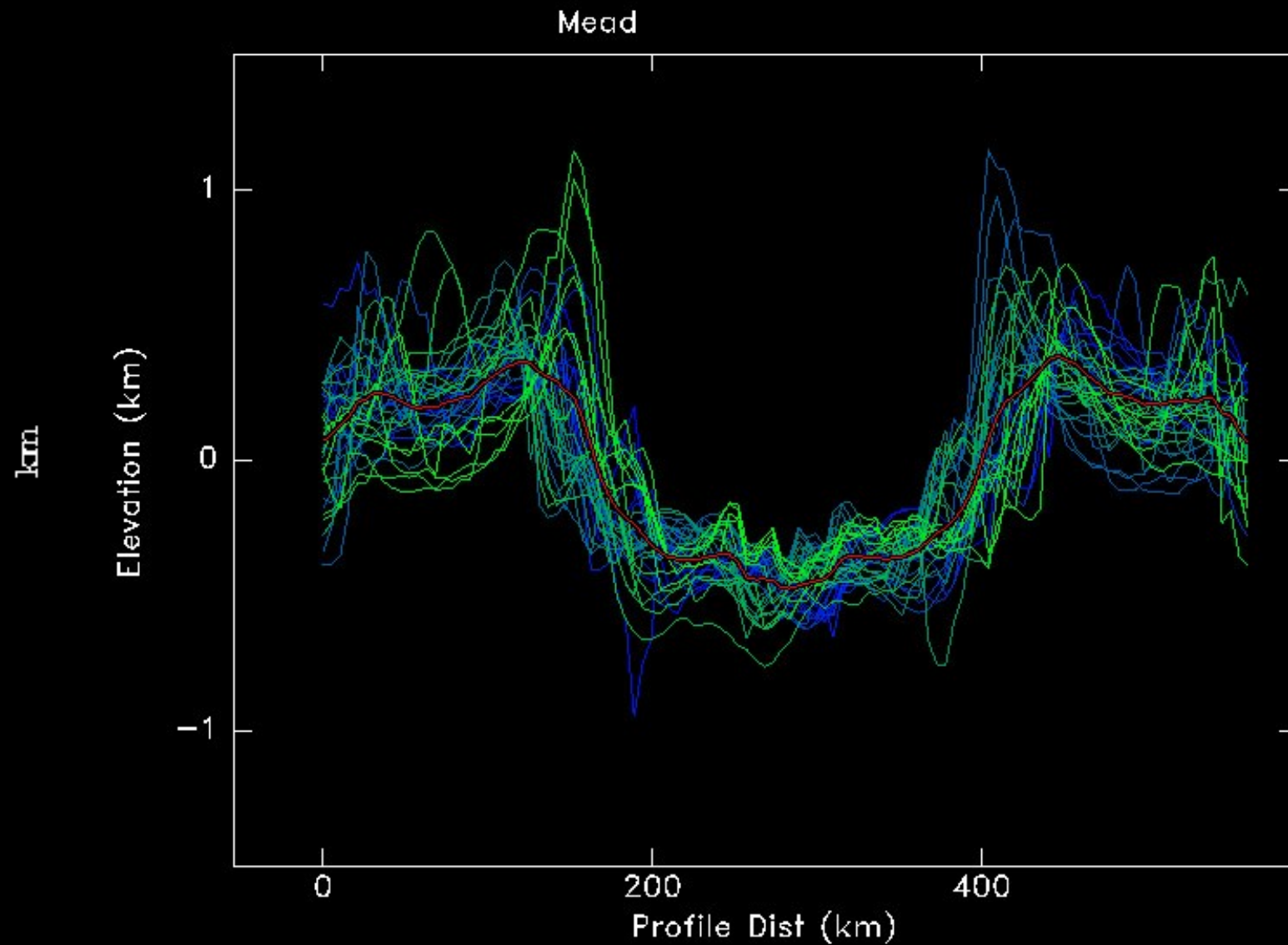
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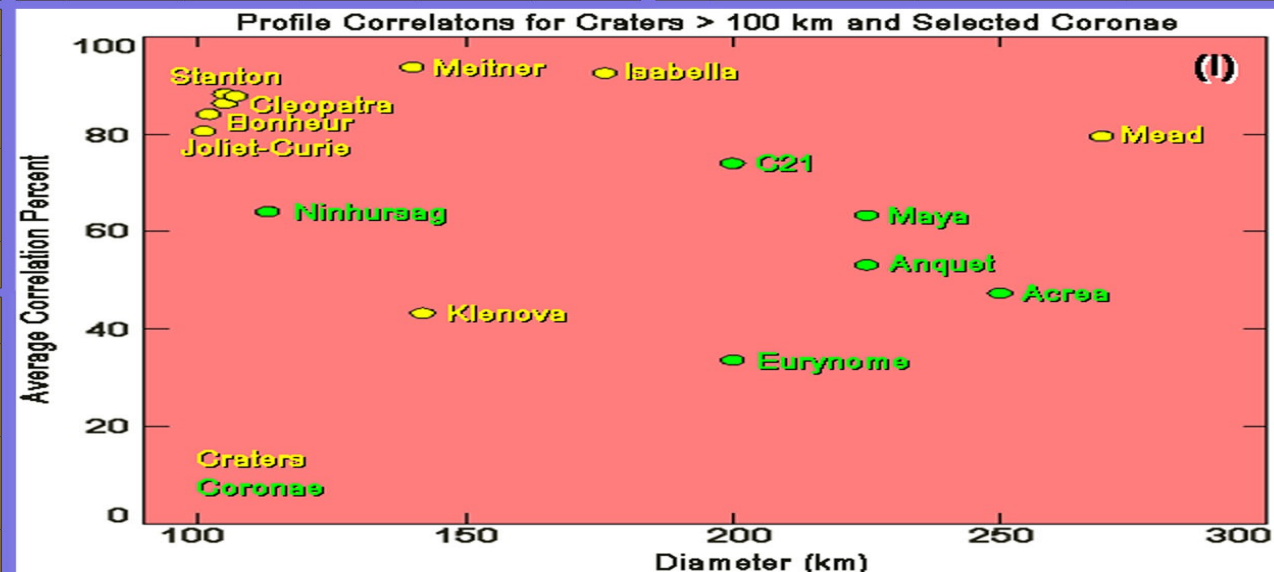
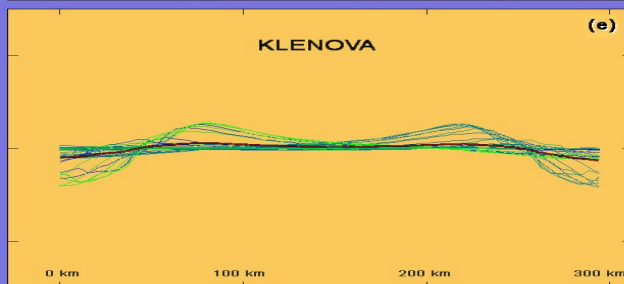
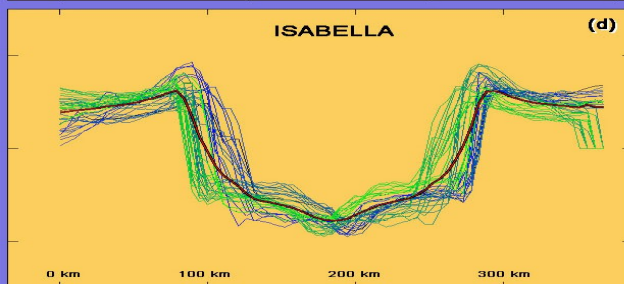
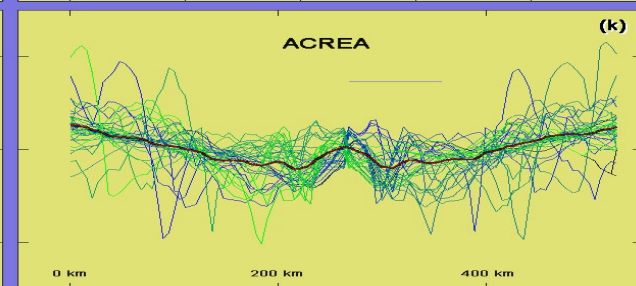
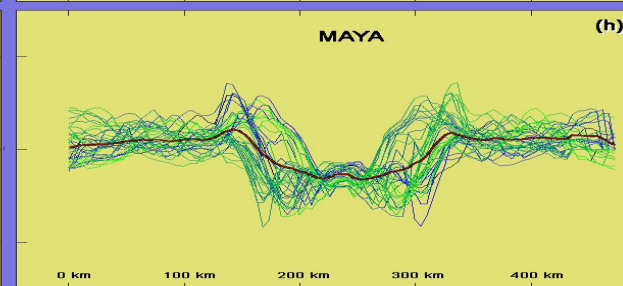
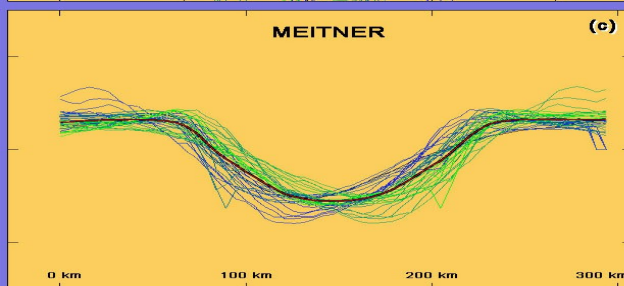
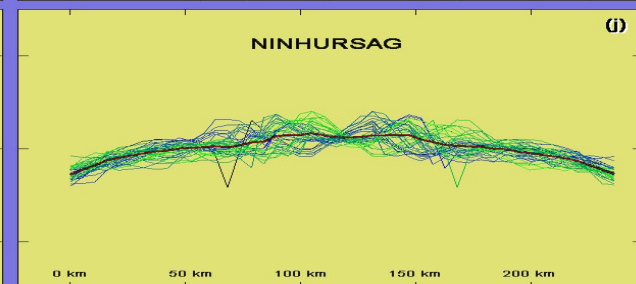
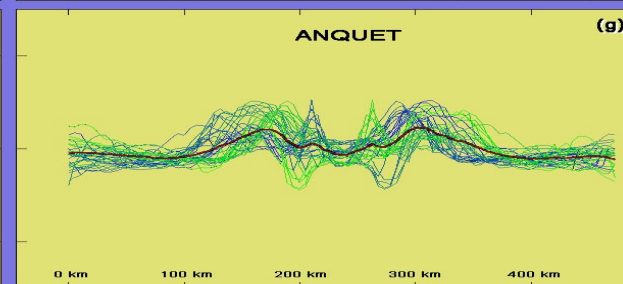
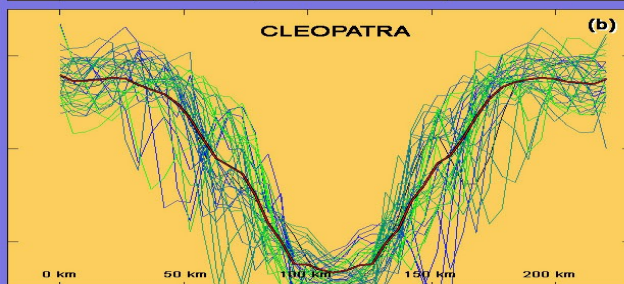
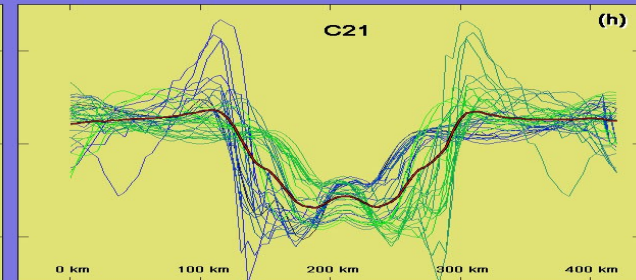
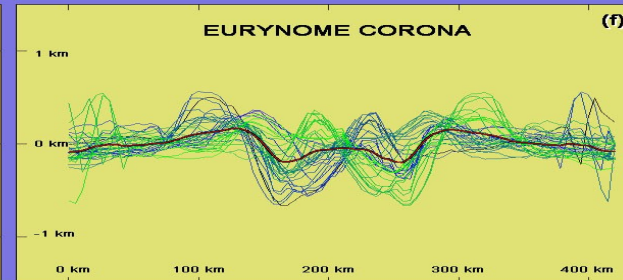
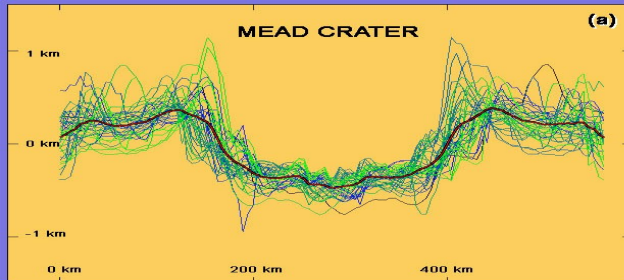
# Ninhursag – Corona or Crater?



# Cross-Correlation Example

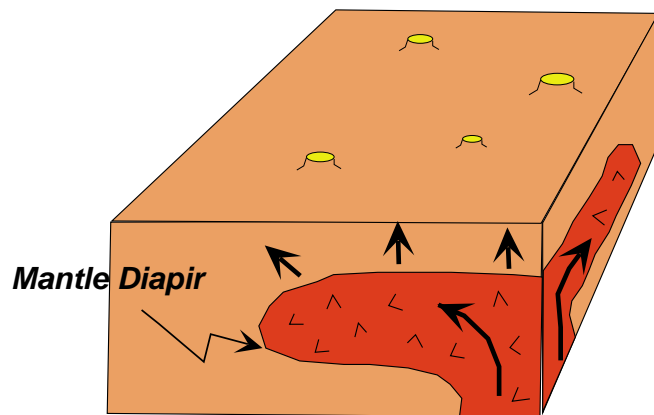




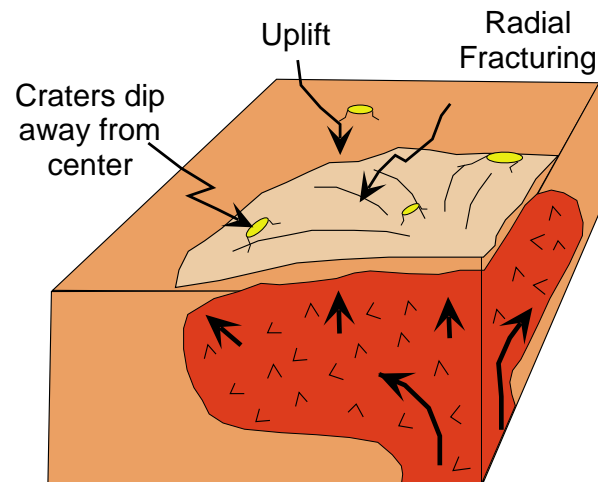




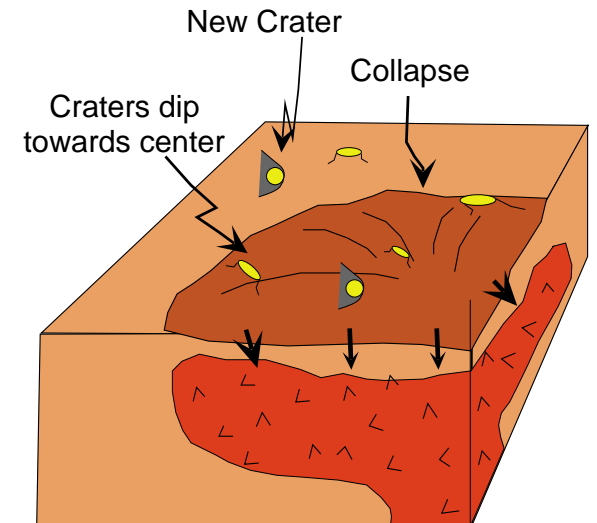
# Uplift Hypothesis



**Stage 1**  
**Initiation**



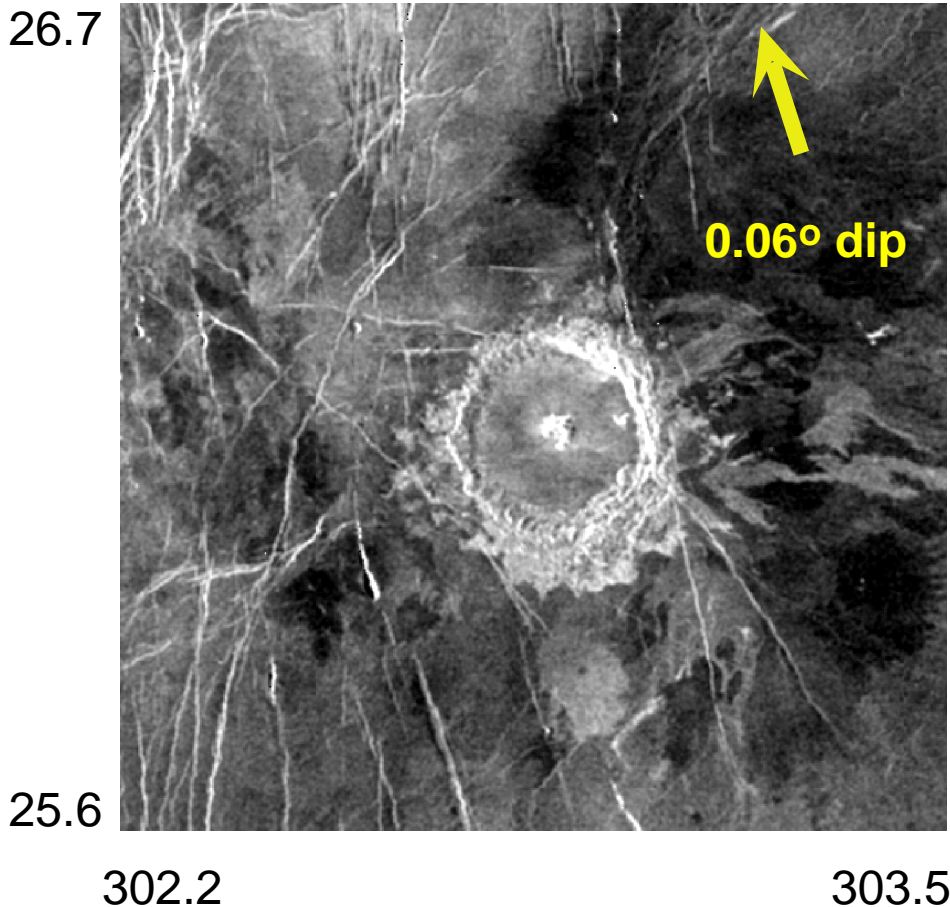
**Stage 2**  
**Uplift with Radial Fracturing**



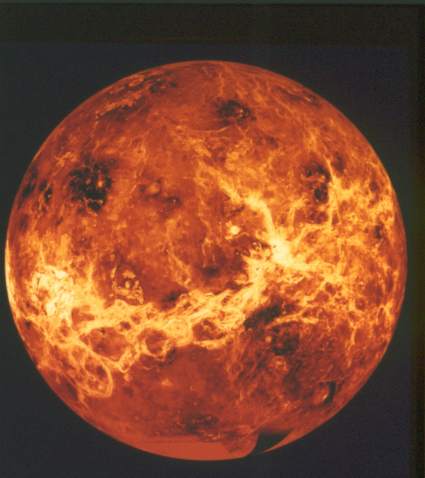
**Stage 3**  
**Collapse**

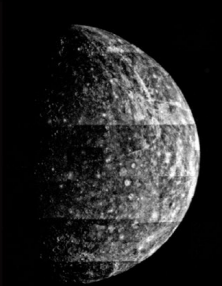
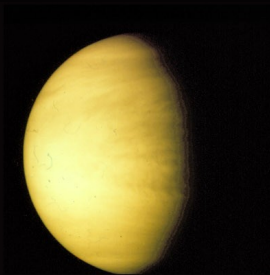



(after Ernst et al., 1995)

## West (26.1° N, 303.0° E, 28.0 km)



Classified as embayed-only, however, image analysis reveals a slightly disturbed ejecta blanket. Note the radar-bright outflows to the E and SE opposite in direction to current dip.

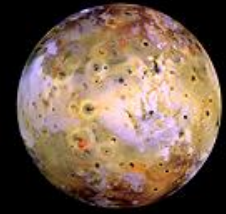


	Mercury	Venus	Earth	Moon	Mars
					
Radius (km)	2439	6052	6378	1738	3398
Mass (kg)	$3.30 \times 10^{23}$	$4.87 \times 10^{24}$	$5.98 \times 10^{24}$	$7.35 \times 10^{22}$	$6.42 \times 10^{23}$
Density (kg/m <sup>3</sup> )	5420	5250	5520	3340	3940
Distance from the Sun (A.U)	0.387	0.723	1.000	---	1.524

# Conclusions

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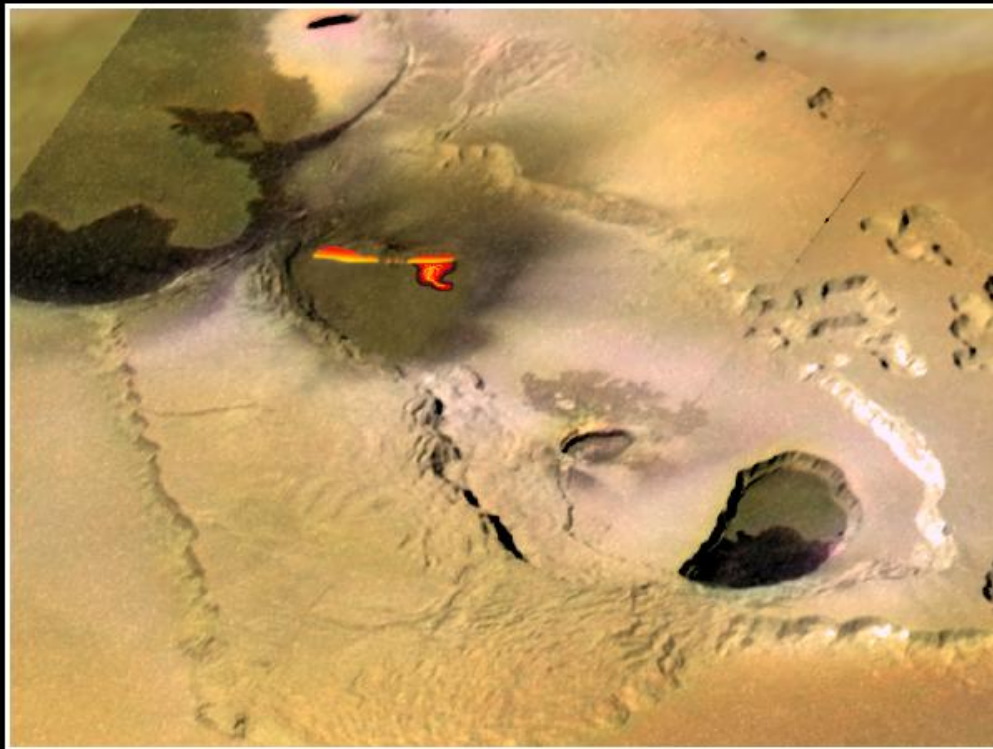
- While Venus closely resembles Earth on a global scale, there are very significant differences between the two:
  - Atmospheric composition, density, and temperature
  - Tectonic style
  - Volcanic style
  - Crater distribution



## Io — Tvashtar Catena

**I25 (26 Nov 1999)**

+ C21 low-resolution color  
+ fire fountain sketch



**I27 (22 Feb 2000)**

visible wavelength data  
+ IR data of active lava flow

