

Venus Seismology

- Science Objectives
 - Constrain global structure via measurements of normal modes and crustal thickness using receiver functions.
 - Determine level of current seismic activity
- Measurement Goals
 - Frequencies from 0.3mHz to 30 Hz
 - Amplitude sensitivity similar to ExoMars, 24 bit A/D digitization
 - Measure all 3 vector components of wavefield
- Result: Compelling, Flagship-worthy science

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- High Temperature Operations Concept
 - Use geophone as sensor
 - Data relay to Flagship orbiter while in its highly elliptical data relay orbit
 - Operate for 117 day experiment (1 Venus solar day) in conjunction with meteorology experiment
 - Power using high temperature batteries
 - Requires moderate breakthrough in high T communication or batteries, or reduced data rate.