

Observatory Mass Management

- DRM single channel 1.1m aperture design fits on lower cost launch vehicle with Gold Rule systems margin of 30%
 - Payload Spectrometer Channels
 - Removed two optical channels, focal planes and radiators
 - Added prism wheel
 - Telescope Structure
 - Shortened in accordance with reduction in single channel optical path geometry
 - Faster telescope
 - Scaled down structural mass based on more efficient load paths
 - Solar Array Sun Shade (SASS)
 - Geometrical shading coverage for spectrometers eliminated
 - SASS shortened in accordance with reduction in single channel optical path geometry
 - Project conducting additional studies on increasing mass margin
 - SNe Roll Mass Considerations
 - SASS geometry and mass dominated by the pitch and roll requirements of microlensing survey.
 - +/- 36 degrees pitch
 - +/- 5 degrees roll
 - SNe pitch (+/- 20 degrees) and roll (+/- 22.5 degrees) do not drive the SASS design beyond what microlensing survey requires
 - Elimination of SNe roll requirements would not save SASS mass
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