***Lunette*: A Global Network of Small Lunar Landers**

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Introduction: For the past two years, JPL's Lunar Robotic Exploration Office has been studying the technical feasibility and cost of a network of small lunar landers for the distributed measurement of both scientific and exploration objectives. The networks considered include 1) a local area network of up to six small landers deployed as a piggy-back launch off an EELV Secondary Payload Adapter (ESPA) ring; 2) multiple individual global landers that can be deployed anywhere on the Moon and can be launched on an EELV-class launch vehicle; 3) the combination of the two previous approaches. Each individual lander is designed with existing technologies including proven and space qualified propulsion technologies, power sources, avionics, thermal design, ACS, telecom, etc. The simple landers are designed for operations over multiple years and for continuous operations during the night, without the use of nuclear power sources. Each lander can deliver between 10 – 15 kg of science or exploration focused payload to the surface. A sample payload suite will be shown in the point design.

This publication will detail the *Lunette* mission design, including the low-energy trajectory to the Moon, lander carrier braking burn and control, deployment approach, landing system, terminal descent approach, and complete system design including mass and power allocations and margins. In addition, the paper will discuss multiple trade-studies that were considered including choice of the launch vehicle, mass margin strategy, technical maturity of the design, preliminary cost estimates, schedule, and risk.

The proposed *Lunette* architecture is particularly suitable for international collaboration in which each lander can carry payloads from different agencies or institutions, or each lander can be built by different institutions according to an open-architecture approach which includes inter-operability, international data standards, etc.

Finally, the paper will discuss on-going as well as future work and key technical challenges.