



## An update on the MoonLite Lunar mission

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The UK has proposed a Lunar Penetrator mission – MoonLITE which will make *in situ* studies of the lunar regolith at four globally spaced locations. Each of the four penetrators will carry a common payload to operate for a year, which enable both strong science and future human mission support objectives to be met.

Key science objectives include investigation of the interior of the Moon via a seismometer network and heat flow measurements; detection of water, volatiles and possible astrobiologically related material at two permanently shaded craters; investigation of the far side which has not had a previous landing; and a calibration landing near a previous Apollo site.

Strong support for future human lunar mission includes observations of surface seismicity to detect regions which may be prone to known large quakes liable to be dangerous to the construction of lunar habitation or observation facilities; and the possible presence and concentration of water which is important to support future human missions.

This presentation will provide an overview of this MoonLite mission; associated technical issues; progress including funding and programme aspects; the current status

of the bilateral Phase-A study with NASA; results of currently scheduled full scale impact tests; and a call for further international cooperation.