

"The Moon: A New Destination for America"

Over the past decade, two robotic missions to the Moon, Clementine and Lunar Prospector, have conducted global reconnaissance of our nearest planetary neighbor. In addition to numerous other discoveries, we have found evidence for water ice in the permanently dark areas near both poles of the Moon. This water ice is present as finely disseminated bodies, mixed with impact generated rock and debris. The presence of water on the Moon has the potential to completely change the space flight paradigm. Currently, our space probes must be supplied and equipped on Earth and launched complete; this limits the amount of material, and thus capability, of future space probes. In contrast, if we can use the resources of the Moon, specifically the water ice at the poles to make rocket propellant, we forever change the rules of space exploration. Use of lunar generated propellant will create an Earth-Moon transportation infrastructure, with which we can not only access any point in cislunar space, vital to national economic and security interests, but also voyage to the planets beyond.

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