

Why Do We Need the Moon: Next Steps Forward for Moon Exploration

Perhaps one of the greatest accomplishments of mankind is when Neil Armstrong was able to step on the moon with his famous words. It was a giant step for the mankind and it signaled the time that man was able to start putting his dominion over the universe starting with the moon. However, fervor of space travel of those days has not been matched by any other activity to this day. After 6 manned missions to the Moon, these missions were shelved due to budgetary reasons and it has not been possible to go back since. However, the need for space travel and space exploration has remained active in the collective consciousness of the world population and there are signs that it can become viable again. Especially with the advent of the private sector for space tourism, the concept for moon travel may become possible again. It is essential that the moon is used as a stepping stones as it has been proven that the energy cost for manned missions to any planet including Mars is quite high. However, having a habitable presence on the moon would make manned missions to other planets a more probable possibility and furthermore support to these missions would also increase significantly. Especially with the findings of the Chandrayaan mission, it seems more feasible to create a presence on the moon. Of course, the first step may come through private space companies under the flag of space tourism as passengers may be given a chance to fly an orbit around the moon and come back to Earth. Furthermore, more and more universities and research institutions are planning mini-moon missions with nanosatellites or with microsatellites. In addition, with the possibility of space mining for rare materials such as Helium 3, the prospects for the moon seems to be quite positive. This paper outlines the various possibilities for the future of the moon and it details how it can be beneficial for future space technology endeavors.

Keywords: Moon Mission, Nanosatellites for Moon, Helium 3 Mining, Moon Base, Future Moon Missions, Private Sector Moon Missions