

Lunar Base Funding – Part I, NPO-NGO

by

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Take as an assumption that humankind needs a lunar base from which to expand off of Earth. The technical capability exists; people walked on the Moon 45 years ago. As well, a nascent cultural eagerness for journeying beyond Earth gets vindicated with every science fiction movie introduced at the cinema. Yet no concerted effort aims to establish infrastructure for people to live and work off of Earth. Who should we look to in order to address this? It can only be a non-profit, non-government organization as the following explains.

Establishing a lunar base is outside the prerogative of any nation. Historically, national and religious leaders felt compelled to exert their cultural norms onto others. They did this through armed conflict or proselytization. Their goal was to control both the people and the land's riches and resources. Economic necessity could be considered another rationale. For instance, a claim has been made that Alexander the Great had to continually vanquish new empires to pay his army for previous conquests. Generally in these circumstances, the aggressor was not interested in maintaining the cultural identity of the person or even the life of the person unless they perceived something of value. How would such a mindset apply to the Moon? The Moon presents a diametrically different issue. It has no repositories of easy riches or resources to attract a conqueror. As well, it contains no sentient being(s) to control or subjugate. Thus, a leader obtains no benefit from exerting influence over some or the entire Moon. Given this, together with the continual challenges of a leader striving for personal and national survival right here on Earth, there is no expectation that a leader will establish a lunar base.

Actually, a leader may do grievous harm to self and nation in funding a lunar base. The effort and expense would drain resources possibly to the point where it could become a (economic) target of another nation/culture. Let's consider some numbers. Today, the United States federal government outlay is \$3.6T of which \$0.6T is deficit. The nation has an accumulated debt of \$18T. Its gross domestic product is about \$17T. Many constituents consider the budget deficit to be a danger to the nation. Given this, the United States is placing significant effort into reducing their outlay so as to remove the deficit. Now let's look at the cost of a lunar base. First some analogies. The Apollo program cost about \$200B in current year dollars. It was a simple visit to the Moon. A repeat of such an outlay was unacceptable for a singular nation so the International Space Station brought together 15 nations directly and many others indirectly to contribute about \$150B in current year dollars. Both project schedules were spread over 10 to 20 years. And, both had defined end states. In comparison, a lunar base will be more expensive than both. Further, a lunar base will require many more years before it is self-sufficient. For the United States, or any other nation with a debt/deficit, the addition of such a new outlay without benefit to constituents couldn't be justified. Perhaps some or all the nations of Earth will agree to jointly fund a lunar base? While such a future may be desirable, the nations on Earth have many other issues to resolve

before they all join together for a long-term investment, no matter how critical. In essence, as long as nations continue with their competitive attitude, neither one nation nor a group of them will be funding a lunar base.

Last, acknowledge that national leaders want to remain in place, that is, to win the next election or prevent a rebellion. One important qualifier is the perceived success of the governing body. To achieve this image, leaders avoid potential failures; in effect they are very risk adverse. However, establishing a lunar base is probably one of the riskiest large scale ventures imaginable. Thus, a leader is unlikely to directly associate itself to such a project. Indeed, even if a leader were to initiate a lunar base, there is no guarantee that the subsequent regime would assume the risk. With this aversion overshadowing their decision making, a leader(s) will not support outlays to emplace and maintain a lunar base.

Can we look to individuals to provide the funds for a lunar base instead of nations? Simply put, no. The top ten wealthiest individuals control about \$650B, the top 100 control a whole lot more. This is a huge amount and probably sufficient to fund a self-sufficient lunar base. However, aside from a very few, these individuals have interests other than extending humankind into space. Their concerted view lies principally in maintaining and growing their wealth. A few super wealthy, realising that they are unable to spend their wealth in the few years remaining to them, are trying to better the lives of those less fortunate. This effort is exemplary. But, there isn't a whole lot of interest in pushing the boundaries of humanity's existence much as Christopher Columbus found. The wealthy are content with incremental improvements that harbour little risk for appreciable reward. They know that there is very little to no near-term reward to extending the reach of humanity beyond Earth. Given today's attitudes, the wealthy individuals, like nations, are not a recourse for a lunar base project.

As a final consideration, consider a for-profit organization. Purely by reasoning we know that a lunar base cannot look to these entities for funding. The cost of a lunar base will not be recovered in a lifetime; if ever. People will not invest in a corporation that will not have any monetary returns on investment. A for-profit organization will not consider funding a lunar base.

With this perspective, only one possibility exists for funding a lunar base; a not for profit, non-governmental organization. This organization can draw upon contributions from people, corporations and nations. Being a non-partisan group, this organization can overcome national and non-secular boundaries. As well, it can assume the risks of this project, can mediate them, as necessary, and, can respond to failures, as need. By definition, it will have the singular focus of emplacing infrastructure upon the Moon to enable self-sufficient occupancy by humans. As such, it transcends issues related to national leadership renewal and even localized Earth-based exigencies, such as earthquakes and tempests. It exists longer than the lifetime of a singular individual. It is the organization that will advance humanity beyond Earth's surface.

While the practicalities of a not-for-profit, non-governmental organization do enable the focused development of lunar infrastructure, some hurdles exist. The principal hurdle is convincing people, corporations and nations that this approach is valid and that the organization is legitimate; indeed essential. Another hurdle lies in the means of communicating this endeavour and transferring funds. Both these hurdles are addressed in our other white papers.