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Moon, Mars and Beyond: Analogues, Habitation and Spin-Offs (2)

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SOUNDING BALLOONS AS A SOCIAL EFFECTIVE VISUALIZATION TOOL

**Abstract**

Sounding balloons offer access to high altitudes where a lot of knowledge can be acquired cost-effectively by means of either simple or complex experiments. After having set up the International Sounding Balloon Project, it pretends to expand this platform to any interested citizen from all around the world making it more accessible to all kind of societies.

In the last years our team, specialized in sounding balloons, has developed several sounding balloon projects in order to take advantage of staying at altitudes above 30km. These projects resulted in the acquisition of different data. Some of this data and its corresponding results have a complex scientific background, making them appropriate for only a specialized sector and facing difficulties to share them with the general public. However, there are some visualization tools used to publish results in a clearer visual format: photographs or simple results plotted in easy understanding ways. By means of this visualization tools we have proved not only how well society gets to understand the importance of scientific projects, but also the effect on questioning which are the real purposes and needs of these projects. For this reason, a simplified tracking system with basic launch kit has been standardized and will be accessible to any interested citizen, developing this kind of technology for multidisciplinary exploration. This way, any interested person will have the specific technology for the easy visualization of a specific region from the stratosphere, shaping the vision of Space. Thanks to the campaigns carried out through the last years, we had witnessed the level of importance of a simple image of the earth taken at altitudes above 30km and its positive effect on nowadays society. Moreover, all information acquired will help future projects in order to improve continuously as a result of a possible international cooperation system interconnected by Internet. Regarding to institutions' and universities' interests and based on the experience gathered on previous national campaigns, there is a considerable potential in the stratosphere and a lot to be done.

This paper will review the rationale behind this initiative, highlighting the potential of an international and interdisciplinary multiple sounding balloon campaign in the fields of science, technology, education and research of the atmosphere. Finally, it will describe the development achieved so far and the roadmap for establishing a broader international cooperation pretending to contribute positively to the society.