

IAF SPACE EXPLORATION SYMPOSIUM (A3)
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MOON EXPLORATION ACCELERATION : THE CONCEPT OF THE FLIGHT DATA RECORDER
FOR SPACE MISSIONS

Abstract

With the first Artemis mission back to the Moon, the exploration takes a new step in which robots works on its surface. The launch and the robots takes time and the moon exploration need industrialization process to show the capabilities to put human facilities easily. The way would be to find other than the Space missions to send sensors helping human to secure its long term or permanent presence. And the low cost launcher in the New Space context give the opportunity to get on orbit small satellites. Considering this capability, some Space assets shall be sent to the Moon in a different way. The rythm would be faster and cheaper that the current robot. Thanks to small robot with unusual propulsion like droneball principles, the exploration shall be even more better than the one using heavy robots and complex sensors. To carry the drone to the Moon no more heavy rocket are necessary. The rocket should be used with the principle of flight data recorder installed at the specific place. The rocket is launched to the Moon with a simple trajectory like a missile against a target. As the gravity is not the same in the Moon resulting of a physic formula, the drone bal or another sensors shall be liberated by the impact or by the fuze system initiated once the debris on the lunar surface. This approach should be applicable for Deep missions too.