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52nd IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4)
SETI 2: SETI and Society (2)

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MOON FARSIDE PROTECTION FOR THE BENEFIT OF SETI, ASTROBIOLOGY, COSMOLOGY AND PLANETARY DEFENSE

Abstract

In December 2021 the International Academy of Astronautics (IAA) created a mew Permanent Committee devoted to the Moon Farside Protection. This new Committee is chaired by this author and the Committee's Co-chair is Prof. Jack Burns of the University of Colorado at Boulder (USA). In this presentation we advocate the support to the Moon Farside Protection by all scientists working in four different areas of science: SETI, Astrobiology, Cosmology and Planetary Defense. In fact: 1) SETI needs radio quietness to possibly detect Alien Civilizations "signatures" that reach us very feeble because of the huge distances among stars in the Milky Way, if not from other galaxies. The discovery of one or more ExtraTerrestrial Civilizations in this or other galaxies would change the history of Humankind. 2) ASTROBIOLOGY studies pre-biological interstellar molecules by virtue of their roto-vibrational spectra: a delicate search for feeble spectral lines that only advanced radio telescopes and the Moon Farside radio silence may achieve. 3) COSMOLOGY needs the radio quietness on and above the Moon Farside to pick up the extremely feeble radiation of the hydrogen line at 1420 MHz as down-shifted to much smaller frequencies, MHz or kHz, by the 14 billion years of universe expansion. 4) PLANETARY DEFENSE. The seeing from the Moon is wonderful (though the micro-meteorite risk is high). Thus, optical telescopes pointing at the (blocked) Sun would enable high-accuracy measurements of the orbital parameters of NEOs, greatly improving all data for Planetary Defense. By February 2022 (when this Abstract is being prepared) this new IAA Committee has already obtained the support of dozens of new Members worldwide (including the USA, China, Europe and more), and so we are now seeking for the support of the United Nations COPUOS, the International Astronomical Union, the International Telecommunication Union, CORF, CRAF and other organizations to draft a Farside Treaty to protect the radio-noise free Moon Farside before private polluters destroy it.