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| MEMORANDUM FROM THE PARLIAMENTARY OFFICE |

**NATIONAL ASSEMBLY**

**FOR WRITTEN REPLY**

**QUESTION 1716**

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**INTERNAL QUESTION PAPER NO 16 OF 2023**

**Dr W J Boshoff (FF Plus) to ask the Minister of Higher Education, Science and Innovation:**

Considering the demand for radio silence over a great part of the Northern Cape for the purpose of radio astronomy, how will the radio silence be impacted by the global coverage of Starlink’s satellite-driven internet coverage?

**NW1957E**

**REPLY:**

The proliferation of satellites launched into low earth orbit around the earth for internet coverage by companies such as Starlink, Oneweb, Amazon and others, is posing a threat globally to astronomical observations and not only just on the Square Kilometre Array (SKA) radio telescope. South Africa together with the international astronomy community is working closely with the International Telecommunications Union (ITU) and the United Nations Committee on Peaceful Uses of Outer Space (COPUOS) to address the negative impacts Low Earth Orbit (LEO) satellites on dark and quiet skies.

Some companies have made efforts to mitigate these effects with the use of less-reflective material in satellite construction or changing the orientation of satellites in space. Furthermore, companies can provide astronomers with higher accuracy information about the location of satellites so that observatories can take this into account to decide when and where to point their telescopes. While these potential solutions show promise, they will require a coordinated effort between satellite industry, governments, and astronomy community. A cooperative approach involving all stakeholders is an effective way to reach a satisfactory balance between the need for the evolution of the LEO space economy and the need protect the science of astronomy which requires pristine skies.

Locally, the Department works closely with the Independent Communications Authority (ICASA) through a Memorandum of Agreement that ensures that any spectrum permit licenses that are issued to service providers do not impact negatively on the SKA telescope. Furthermore, the spirit of the Astronomy Geographic Advantage (AGA) Act of 2007 and its associated regulations, is such that it does not demand total radio silence but rather a harmonious co-existence of the telescope with other installations and services in the declared astronomy reserve in the Northern Cape.