

ANGLAIS

Expression écrite

Nasa has announced it is looking for private companies to collect dust and rocks from the surface of the Moon and bring them back to Earth. The American space agency would then buy the moon samples in amounts between 50 to 500 grams for between \$15,000 and \$25,000.

The Nasa administrator, Jim Bridenstine, has announced that the moon material collection would become part of a technology development programme that would help astronauts 'live off the land' for future manned missions to the moon or elsewhere. Bridenstine said Nasa "is buying lunar soil from a commercial provider as it's time to establish the regulatory certainty to extract and trade space resources."

The collection is part of Nasa's Artemis lunar exploration programme to land US astronauts, including the first woman, on the moon by 2024. The agency has indicated that missions further afield, to Mars for instance, will require the use of locally mined resources. Bridenstine said the effort would comply with the Outer Space Treaty of 1967, which says that no country may lay sovereign claim to the moon or other celestial bodies in much the same way that the Antarctic continent is off-limits for territorial conquest.

In May, Nasa unveiled a legal framework that would govern the behaviour of countries and companies in space and on the moon. The legal framework, known as the Artemis Accords, include the creation of 'safety zones' around sites where mining and exploration would take place on the lunar surface. Nasa's top administrator has also said that the policies that will govern mining from celestial bodies would be much the same as those that currently exist for the world's oceans.

"We do believe we can extract and utilize the resources of the moon, just as we can extract and utilize tuna from the ocean," Bridenstine said. Unlike fisheries, however, participating celestial mining companies would be required to provide imagery of the material and the location from which it was recovered.

Nasa already has a separate programme to contract companies to fly science experiments and cargo to the moon ahead of a human landing. Those include Astrobotic, SpaceX, Blue Origin, Sierra Nevada Corp and Lockheed Martin.

Nasa's announcement has been criticized for establishing the legal precedent that private companies can collect and sell celestial materials with the explicit blessing of Nasa and the U.S. government.

Adapted from an article in *The Guardian*, 11 September, 2020

Questions:

1. According to the journalist, what is specific about Nasa's new lunar exploration programme? (80 words, $\pm 10\%$) Answer the question in your own words.
2. In your opinion, what advantages and disadvantages would this programme entail for the US and the rest of the world? (180 words, $\pm 10\%$)

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Thème

Je m'assis et lui avouai que, malgré mes efforts, nos conversations n'avaient jamais pu prendre un tour personnel.

Miranda semblait exaspérée :

- Je suis sa fille unique, je l'aime mais je ne sais rien de lui. Quoique son comportement ait été exemplaire, mon père demeure un inconnu. Voici mon seul reproche : il aura tout fait pour moi sauf me dire qui il était.

De son panier, elle extirpa un encombrant album. Sur les clichés de groupe souriait une famille constituée de quatre personnes. Lorsque Miranda eut cinq ans, Édith disparut.

- Qu'est-il arrivé à votre mère ?
- Une tumeur au cerveau. Que remarquez-vous ? s'exclama-t-elle, brutale.
- Euh...il n'y a pas de photographies datant de l'enfance de votre père.
- Ses parents sont morts. Il ne voulait jamais en parler, ainsi que beaucoup de Juifs dont la famille a été assassinée ... J'ignore tout de mes grands-parents, oncles et tantes. Lui seul a survécu.

Eric-Emmanuel Schmitt, *Les deux messieurs de Bruxelles*, 2012