

**Statement by Kevin Conole, U.S. Representative to the 65th Session of
the UN Committee on the Peaceful Uses of Outer Space on Agenda Item 10,
“Spin-off Benefits of Space Technology”
June 3, 2022**

Thank you, Mr. Chairman. The United States continues to “bring NASA technology down to Earth.” Developed during NASA mission work, these innovations are made available to entrepreneurs, companies, academia, and other government agencies through the NASA Technology Transfer program. Each year, NASA technologies find new life through secondary uses such as cleaning up pollution around the country, growing better produce, and even preventing the spread of the novel coronavirus.

For more than 40 years, NASA has tracked examples of successful commercialization in its annual *Spinoff* publication. There are more than two-thousand documented space technologies improving life on Earth. The United States is pleased to highlight a few spinoff technologies with the Committee that are creating jobs, boosting the economy, and saving lives.

While the world works to heal after unprecedented challenges caused by the coronavirus pandemic, we can reflect on how our investments in space exploration helped us fight back here on Earth. Air purifiers and air-quality sensors born from decades of research to keep air fresh on the International Space Station have been utilized in places such as schools, hospitals, shopping centers, office buildings, airports, and even buses to slow the spread of the virus.

And the focus on a healthier planet doesn’t stop with mitigating the effects of the pandemic, NASA technology is playing a key role cleaning up contaminated industrial sites around the country, starting at NASA’s Kennedy Space Center. The site of our most historic launches is also home to one of the largest wildlife preserves in Florida. However, those launch sites were contaminated with chemicals that were once used to clean rocket engine parts but are now known to hurt wildlife and humans alike. Seeking to reverse the damage, NASA devised an innovative cleanup method that combines emulsified vegetable oil, water, and microscopic iron particles that attract and capture the toxic molecules. The technique is faster, cheaper, and less disturbing to the environment than other methods and is now being used to clean up contamination from a massive train derailment in Louisiana, where thousands of gallons of toxic chemicals have been causing problems for more than 30 years.

Our investments in space exploration are not only helping to keep our planet green, but they are also helping to bring the green to the dinner table, too. Vertical farming techniques first developed to feed astronauts on long duration missions are now enabling sustainable, high-yield crop growth with a small footprint. This approach to farming had to make use of a limited water supply, minimal energy consumption, and no sunlight, and it couldn't use soil as a growth medium. By farming indoors, scientists were also able to eliminate chemicals, drought, and pests. Now, several companies are using this research to bring fresh produce such as lettuce and potatoes to grocery store shelves. In fact, the entire controlled environment agriculture industry has roots in this NASA research.

These are just a few examples of the ways we ensure innovations developed for space exploration are benefitting the nation by creating jobs, protecting the planet, and improving lives globally.

Additional information about these and other spinoffs can be found in the NASA publication, *Spinoff 2022*, which can be found online (at <https://spinoff.nasa.gov/>).

Thank you, Mr. Chairman.