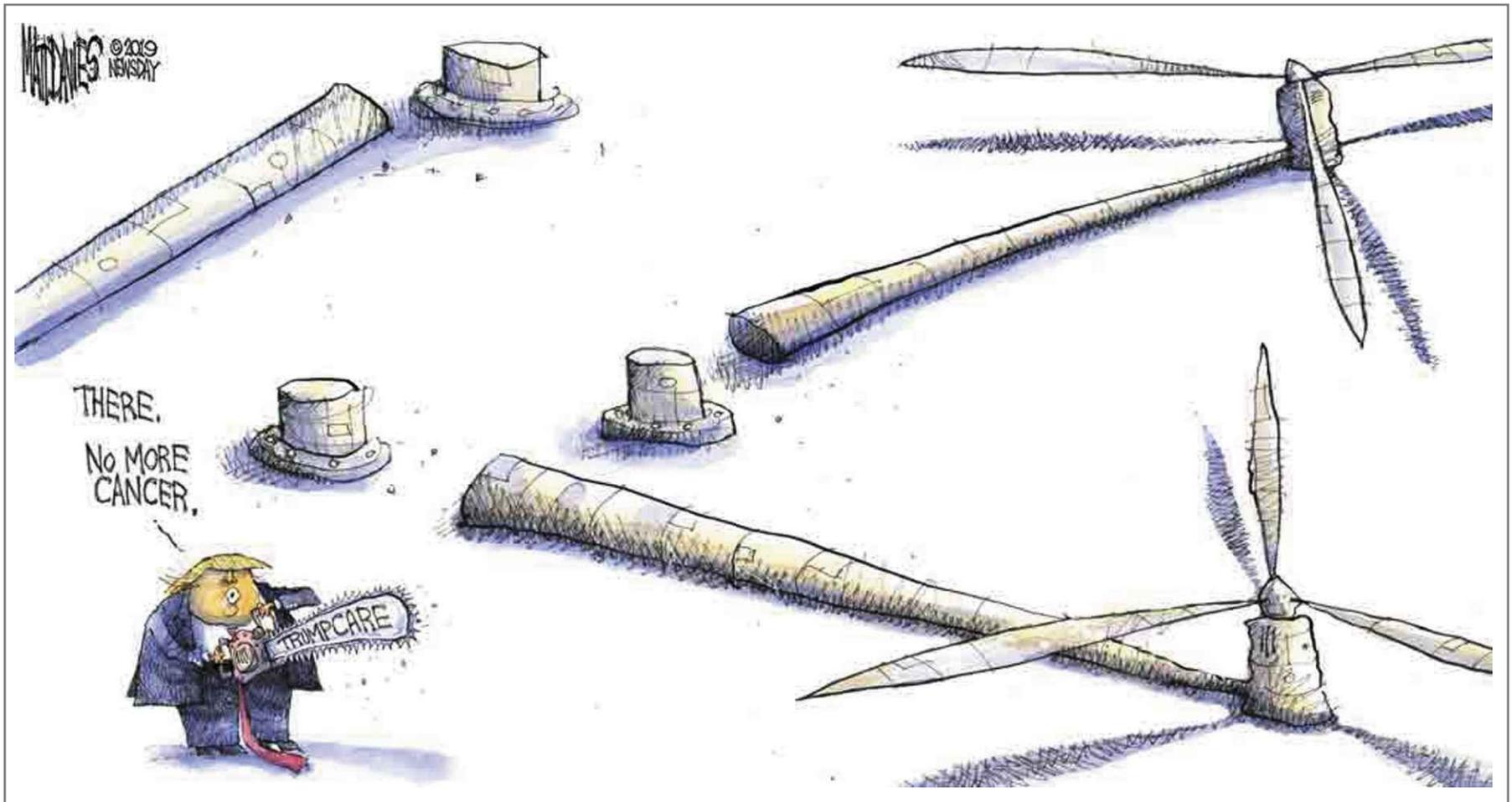


MATT DAVIES



OPINION

NEWSDAY/MATT DAVIES

The quest and sum of our species

Japan's Hayabusa2 is not a flight of fancy, but an expression of human ingenuity.



Michael Dobie

michael.dobie@newsday.com

The headline was rather audacious:

Japanese spacecraft blasts crater in asteroid.

It was not a prank. It appeared Friday, on a lot of reputable websites, and the mind immediately flashed to Bruce Willis and his motley crew of oil drillers saving the world from Armageddon by blowing up a hunk of collision-course space rock with a nuclear bomb. It was only last month, after all, that we absorbed the latest news flash describing an asteroid passing close to Earth — “close” being a relative term when it comes to space travel.

But the Japanese mission was not that. Nor, thankfully, was it some early chapter in the dreadful space arms race in which the United States and other world powers seem determined to engage.

This was purely about science. And as such it was a wonderful tonic for the frustrations of life on Earth, the endless and mindless political battles, the bloated egos and blatant falsehoods, the petty crimes and base venality, the chronic complaints and empty distractions.

It sustains and enriches one's soul to know that we humans can do things like this, too.

The Japanese craft, Hayabusa2, has been hanging around an asteroid named Ryugu since last year. It launched in 2014 with a straightforward mission: collect some

samples from Ryugu and — here's where it gets pretty amazing — bring them back to Earth.

In September, it deployed a couple of rovers to explore Ryugu's surface, collect data and take photos. Shortly after that, it dropped a kind of robotic box to do more of the same. In February, Hayabusa2 landed on the surface and shot the asteroid with a bullet, which created fragments from the rock that shot up into the craft's collector.

Then came Friday's capstone. The spacecraft again descended toward Ryugu and released a canister that housed an explosive copper ball. Hayabusa2 scurried quickly out of the way of the blast, which created a crater that could be up to 32 feet wide and 3 feet deep. The craft will return soon when the proverbial dust settles and attempt to gather up material from inside the crater. Later this year, it will begin the

long trip back home with its precious cargo.

This would be cool enough if it were happening in a Nevada desert, or on the moon. But it's being done on a rock barely a half-mile wide flashing through the solar system some 186 million miles away. I'm from a generation that still feels a touch of gratitude for the TV remote control; as kids, we had to get up from the couch and walk across the living room to turn the knob to change channels.

But what's really astounding is that the material from the crater on Ryugu has not been exposed for billions of years. Nothing like that has ever been brought back to Earth. Since asteroids are believed to be remnants from the formation of our solar system 4.5 billion years ago, they could provide clues about our humble home and how life was formed on it.

In other words, might we discover that the building blocks of life on Earth hitched a ride to

our rock on an asteroid that slammed into it long ago? Last month, Japan's space agency announced that Hayabusa2's probes had detected hydroxyl-bearing minerals that scientists say could explain where our water came from. That's no small thing.

These kinds of missions are barometers of us as a species — reflections of our belief in science and testaments to our ingenuity, our thirst for knowledge, and our quest for understanding.

Ryugu was named for a magical underwater palace in a Japanese folk tale. A fisherman hops a ride to the palace on the back of a turtle he has saved, and returns with a mysterious box.

I hope we never stop riding turtles or coming back with boxes.

Michael Dobie is a member of Newsday's editorial board.

newsday.com NEWSDAY, SUNDAY, APRIL 7, 2019