

China lands spacecraft on 'dark' side of moon

By KEN MORITSUGU
Associated Press

BEIJING — China's burgeoning space program achieved a first today: a landing on the so-called dark side of the moon that brings the country closer to its goal of becoming a space power.

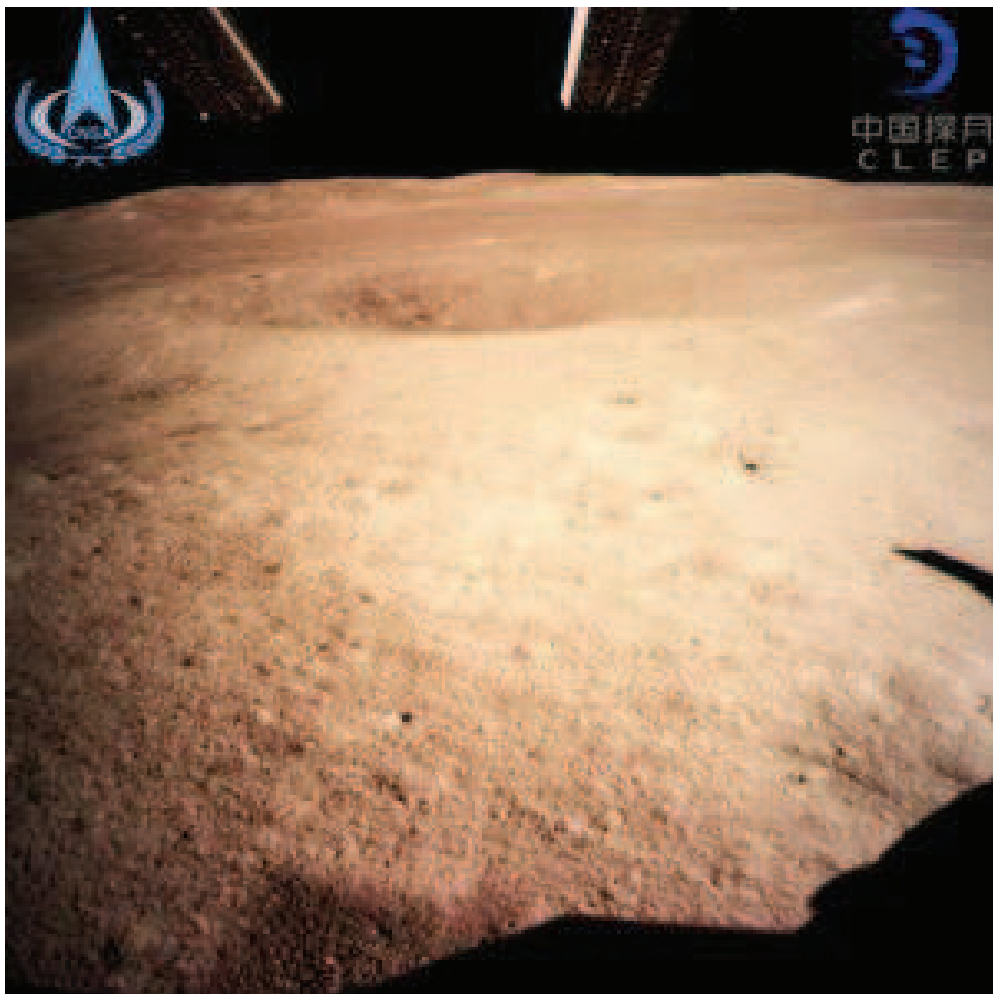
Three nations — the United States, the former Soviet Union and more recently China — have sent spacecraft to the near side of the moon, which faces Earth, but this landing is the first-ever on the far side.

The China National Space Administration said the 10:26 a.m. touchdown of the Chang'e 4 craft has "opened up a new chapter in human lunar exploration."

A photo taken at 11:40 a.m. and sent back by Chang'e 4 shows a small crater and a barren surface that appears to be illuminated by a light from the lunar explorer. Its name comes from that of a Chinese goddess who, according to legend, has lived on the moon for millennia.

The landing highlights China's growing ambitions to rival the U.S., Russia and Europe in space, and more broadly, to cement the nation's position as a regional and global power.

"The space dream is part



The first image of the moon's far side taken by China's Chang'e-4 probe.

of the dream to make China stronger," President Xi Jinping said in 2013, shortly after becoming China's leader.

In year-end wrap-ups,

Chinese media and officials hailed the Dec. 8 launch of Chang'e 4 as one of the nation's major achievements in 2018. Today's landing was announced to the public by

state broadcaster CCTV at the top of the noon news.

"On the whole, China's space technology still lags behind the West, but with the landing on the far side of

the moon, we have raced to the front," said Hou Xiyun, a professor at Nanjing University's school of astronomy and space science.

He added that China has Mars, Jupiter and asteroids in its sights: "There's no doubt that our nation will go farther and farther."

In 2013, Chang'e 3, the predecessor craft to the current mission, made the first moon landing since the former Soviet Union's Luna 24 in 1976. The United States is the only country that has successfully sent a person to the moon, though China is considering a crewed mission too.

For now, it plans to send a Chang'e 5 probe to the moon next year and have it return to Earth with samples — also not done since the Soviet mission in 1976.

The moon's far side isn't always dark but is sometimes called the dark side because it faces away from Earth and is relatively unknown. It has a different composition than the near side, where previous missions have landed.

Chang'e 4, a combined lander and rover, will make astronomical observations and probe the structure and mineral composition of the terrain above and below the surface.

"The far side of the moon

is a rare quiet place that is free from interference from radio signals from Earth," mission spokesman Yu Guobin said, according to the official Xinhua News Agency. "This probe can fill the gap of low-frequency observation in radio astronomy and will provide important information for studying the origin of stars and nebula evolution."

One challenge of operating on the far side of the moon is communicating with Earth. China launched a relay satellite in May so that Chang'e 4 can send back information.

China conducted its first crewed space mission in 2003, becoming only the third country to do so after Russia and the U.S. It has put a pair of space stations into orbit and plans to launch a Mars rover in the mid-2020s. Its space program suffered a rare setback last year with the failed launch of its Long March 5 rocket.

Wu Weiren, the chief designer of the China Lunar Exploration Project, called the landing a trailblazing milestone.

"Building a space power is a dream that we persistently pursue," he said in an interview with CCTV at the Beijing Aerospace Flight and Control Center. "And we're gradually realizing it."

Roadkill: 'Damage done is absolutely mind-boggling'

Continued from Page A1

There is a reason hunters try to drop a deer or elk by aiming for the heart or lungs, rather than ramming them with a truck.

When an animal is hit by a vehicle, the impact "vaporizes internal organs," Johnson said. "The amount of damage done is absolutely mind-boggling."

With smaller animals like deer, unless a motorist hits the deer on the tail end or somehow directly on the head, destruction of organs is certain to happen, almost guaranteeing the meat will be ruined by a release of toxins.

Elk — larger and heavier than deer — are a slightly different story.

"You hit an elk with a car and you're probably going to the hospital, not the butcher shop," Johnson said. But still, "the shock of being hit by a car will pop the gut bag like a water balloon."

With all roadkill, there is a potential for a high amount of bacterial infection.

Processing these carcasses is an insurance risk for Shy Ann Meats. Besides, the extra work it would take to piece out salvageable meat means the business would probably have to charge more than usual.

If someone is set on taking home roadkill, Johnson recommends caution.

"Take absolutely all the possible time you can," he said. "Go over it with a fine-tooth comb and smell it."

You may not be able to see contamination in the meat, Johnson said, but you will definitely be able to smell it.

Under Oregon's rules, which went into effect on Tuesday, it remains illegal to intentionally hit a deer or elk.

Anyone who hits a deer or elk and wants to save the meat must notify law enforcement, surrender the antlers and head to the state and submit a permit application within 24 hours providing information about where and when the animal was hit. They get to keep the hide.



Elk are a common sight in Hammond.

Katie Frankowicz/The Daily Astorian

Washington state has allowed drivers to salvage road-struck deer and elk since 2016.

It's too early to say what impact the new law will have across Oregon, but Lou Torres, a spokesman for the Oregon Department of Transportation, said it may help reduce the number of elk or deer carcasses on the side of the state's roads. If this proves to be the case, the law could address both the potential roadside hazard created by carcasses, as well as the statewide hassle of what to do with large roadkill.

As of Wednesday, four people have taken advantage of the option.

October and November tend to be the busiest months of the year for "vehicle versus elk or deer" calls, according to Merila. There are fewer hours of daylight and, with hunting seasons in full swing, the animals seem to be on the move.

State road crews remove dead animals from state roads, but the state does not maintain any rendering plants to dispose of roadkill.

"That's a big challenge for us," Torres said. "We currently have to be pretty creative in how we get rid of the carcass. If we can reduce that somewhere, somehow, that's probably good from ODOT's standpoint, for sure."



A dead deer lies along U.S. Highway 101 near Gearhart.

Brenna Visser/The Daily Astorian

Elk: 'It's not just a county issue — it's a state issue'

Continued from Page A1

"There's not a lot of things we can do as a city," he said. "The ODFW is in control of the management, but they suggested this is a

good first step to protect the citizens from that type of contact."

The ordinance will return for a first council reading in February and a second one in March. If approved, it would

become law 30 days later.

The city will join Warrenton and the Department of Fish and Wildlife with representatives of Oregon Solutions at a meeting at 10:30 a.m. Wednesday in

Gearhart. The meeting is to "see if they'll take up our cause," Sweet said of managing elk on the Clatsop Plains.

Both Mayor Brown and Warrenton Mayor Henry

Balensifer are expected to attend.

The mission of Oregon Solutions — a partner with the National Policy Consensus Center at Portland State University — is to develop

sustainable solutions to community-based problems through collaborative efforts.

"It's not just a Gearhart issue," Brown said. "It's not just a county issue — it's a state issue."