

## Vega rocket fails after takeoff in French Guiana

Kourou, France

A rocket carrying a satellite for the United Arab Emirates failed shortly after taking off from French Guiana on Wednesday night, launch company ArianeSpace said.

"About two minutes after takeoff a major anomaly occurred, leading to the loss of the mission," said Luce Fabreguettes, director of operations in Kourou, on the northern coast of the French territory in South America.

It is the first failure after fourteen successful launches of Vega -- ArianeSpace's lightweight launcher -- since operations began at the Guiana Space Centre in 2012.

## Huge fire erupts at power station outside Moscow

Moscow, Russia

A huge blaze broke out yesterday at a gas-fired power station just outside Moscow with a plume of smoke and flames surging 50 metres (165 feet) into the sky, Russian television showed.

The fire at Power Station No. 27 broke out around 11:00 am. The emergency ministry said that at least five people were injured, while the health ministry said it was at least six.

# Fierce storms tear through Greece

● The area had been hit by winds of more than 100 kilometres (62 miles) an hour

● Six tourists including two children were killed

● There were reports yesterday that a seventh body had been recovered

Thessaloniki, Greece

Six people died and at least 23 were injured as a fierce storm tore through a beachfront in one of Greece's top tourist areas, terrifying thousands of holidaymakers caught in the open, authorities said yesterday.

Six tourists including two children were killed -- two each from the Czech Republic, Russia and Romania -- in the northern region of Halkidiki, near Greece's second city Thessaloniki, in the storms late Wednesday. There were reports yesterday that a seventh body had been recovered, but they have not yet been confirmed.

"There was panic, people were howling and running to hide inside," said Haris Lazaridis, owner of a tavern where a 54-year-old woman from Romania and her son were killed when the roof caved in.

"For five minutes it was hellish," Lazaridis said. He added that more than 100 people were sheltering under the roof when it collapsed.



A caravan overturned by strong winds lies on a beach where a storm killed a Czech couple in Nea Plagia, in Chalkidiki, Northern Greece

In an emergency briefing, government spokesman Stelios Petsas yesterday said the area had been hit by winds of more than 100 kilometres (62 miles) an hour.

Twenty-three people were still receiving treatment in nearby hospitals, including a 72-year-old woman in critical condition, he said.

Most of them are tourists, Petsas said, declining to give nationalities.

The seventh body recovered Thursday is believed to belong to a missing fisherman.

The freak storm only lasted about 20 minutes, according to witnesses, but it was enough to overturn cars, uproot trees

and balcony railings and cause mudslides.

Road access to part of Halkidiki was still severed owing to a fallen high-voltage electricity pylon, Petsas said, adding that restoring power to the area could take another two days.

"It was a miracle that there weren't more deaths," said 39-year-old Kyriakos Athanasiadis, who is vacationing in the area.

"Nearly all the coastal restaurants were full, and you could see large objects flying," he said.

One woman reportedly told hospital staff she was picked up by the wind and thrown in a garbage bin, which then rolled away.

## 'Unprecedented phenomenon'

On a beach in Sozopoli, the storm toppled and ripped open



Broken trees fallen on cars after a storm in Nea Plagia, in Chalkidiki, Northern Greece

a Czech family's caravan, killing an elderly couple in their seventies and injuring their 48-year-old son and 19-year-old grandson.

"The wind picked up the caravan as if it were a matchbox," said Yiannis Karabourniotis, owner of a nearby tavern.

"You cannot describe it. There used to be 50 pine trees around my establishment. Most were uprooted or snapped in two," he said.

Elsewhere in the region, a Russian man and his son were killed by a falling tree.

At least 140 rescue workers were involved in the operation, emergency chief Vassilis Varthakoyannis said.

Prime Minister Kyriakos Mitsotakis, who took over Sunday after general elections, cancelled his meetings to address the disaster, his office said.

The storms came after temperatures in Greece soared to 37 degrees centigrade (98 degrees Fahrenheit) over the past two days.

# Japan's Hayabusa2 makes 'perfect' touchdown on asteroid

Tokyo, Japan

Japan's Hayabusa2 probe made a "perfect" touchdown Thursday on a distant asteroid, collecting samples from beneath the surface in an unprecedented mission that could shed light on the origins of the solar system.

"We've collected a part of the solar system's history," project manager Yuichi Tsuda said at a jubilant press conference hours after the successful landing was confirmed.

"We have never gathered sub-surface material from a celestial body further away than the Moon," he added.

"We did it and we succeeded in a world first."

The fridge-sized probe made its second landing on the asteroid around 10:30am (0130GMT), with officials from the Japan Aerospace Exploration Agency (JAXA) breaking into applause and cheers as initial data suggested the touchdown had been a success. Confirmation of the landing came only after Hayabusa2 lifted back up from the asteroid and resumed communications with the control room.

Research director Takashi Kubota told reporters that the touchdown operation was "more than perfect." Tsuda, with a grin, said he rated it "1000 points out of 100."

"The probe moved perfectly and the team's preparation work was perfect," he said.

## Pristine samples

The brief landing Thursday is the second time Hayabusa2



Researchers and employees celebrating the Hayabusa2's touchdown on the asteroid Ryugu, at the mission control room in Sagami city, Kanagawa prefecture.



Hayabusa2 is the successor to JAXA's first asteroid explorer, Hayabusa -- Japanese for falcon, which returned with dust samples from a smaller, potato-shaped asteroid in 2010. The Hayabusa2 mission was launched in December 2014, and has a price tag of around 30 billion yen (\$270 million).

has touched down on the desolate asteroid Ryugu, some 300 million kilometres (185 million miles) from Earth.

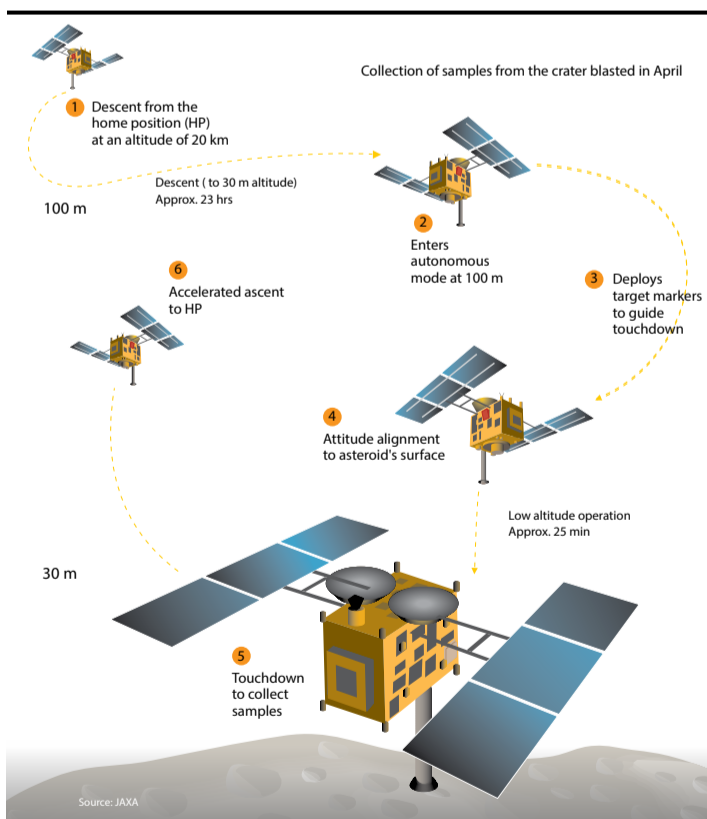
Ryugu, which means "Dragon Palace" in Japanese, refers to a castle at the bottom of the ocean in an ancient Japanese tale.

The complex multi-year Hayabusa2 mission has also involved sending rovers and robots down to the surface.

Thursday's touchdown was

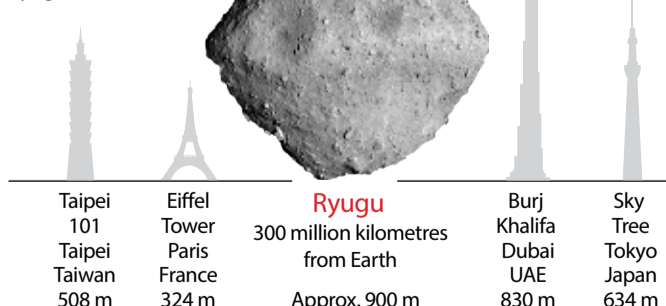
intended to collect pristine materials from beneath the surface of the asteroid that could provide insights into what the solar system was like at its birth, some 4.6 billion years ago.

To get at those crucial materials, in April an "impactor" was fired from Hayabusa2 towards Ryugu in a risky process that created a crater on the asteroid's surface and stirred up material that had not previously been



## Asteroid size

Japan lands probe on the 900 m long Ryugu asteroid



Source: Jaxa

exposed to the atmosphere.

Hayabusa2's first touchdown was in February, when it landed briefly on Ryugu and fired a bullet into the surface to puff up dust for collection, before blasting back to its holding position.

## 'The world is watching'

A photo of the crater taken by Hayabusa2's camera after the April blast showed that parts of the asteroid's surface are covered with materials that are "obviously different" from the rest of the surface, mission manager Makoto Yoshikawa told reporters before the latest touchdown.

Scientists are hoping the probe will have collected unidentified materials believed to be "ejecta" from the blast after landing briefly in an area some 20 metres away from the centre of the crater.

"It would be safe to say that extremely attractive materials are near the crater," Tsuda said before the landing.

The touchdown is the last major part of Hayabusa2's mission, and when the probe returns to Earth next year to drop off its samples, scientists hope to learn more about the history of the solar system and even the origin of life on Earth.

The Hayabusa2 mission has attracted international attention, with Queen guitarist and astrophysicist Brian May sending a video to the probe team ahead of the landing.

"The world is watching. We love you, take care Hayabusa2," the musician told the team.