

China says 'extremely low' risk of damage from rocket debris

May 7 2021, by Ludovic Ehret, Helen Roxburgh



Military experts in the US expect the body of the Chinese Long March 5B rocket to fall to the surface some time over the weekend

China said Friday the risk of damage from a rocket falling back to Earth was "extremely low", after the United States warned it could crash down

on to an inhabited area.

Military experts in the US expect the body of the Long March 5B rocket, which separated from Beijing's space station, to come down some time around Saturday or Sunday, but warned it was difficult to predict where it will land and when.

But Beijing downplayed the risk of danger.

"The probability of causing harm to aviation activities or (on people and activities) on the ground is extremely low," foreign ministry spokesman Wang Wenbin said.

Most of the rocket components would likely be destroyed upon re-entry into the atmosphere, he added, saying authorities "will inform the public of the situation in a timely manner".

China has poured billions of dollars into space exploration in efforts to reflect its rising global stature and growing technological might, following in the extra-terrestrial footsteps of the United States, Russia and Europe.

As fevered speculation over the rocket's trajectory back to Earth pinballed across social media, US Defense Secretary Lloyd Austin on Thursday said the US military had no plans to shoot it down.

"We have the capability to do a lot of things, but we don't have a plan to shoot it down," Austin told journalists.

Hopefully, he said, the rocket will land "in a place where it won't harm anyone... the ocean, or someplace like that".


Even if the rocket or parts of it do fall from the sky, without breaking up

on re-entry, there is a good chance it will just splash down into the ocean on a planet made up of 70 percent water.

But Austin suggested that the Chinese were negligent in letting the rocket body fall out of orbit, saying those who were in the "space domain" should "operate in a safe and thoughtful mode".

Chinese rocket: the big plunge

A part of Long March 5B rocket will disintegrate as it re-enters the atmosphere, but small pieces of debris could reach the Earth



LONG MARCH 5B

- Nose cone
- Stage that contained the **Tianhe space station core module**, successfully placed into orbit on April 29
- 5 m
- 53.7 m
- First stage**
Currently hurtling towards Earth
- Speed Over 28,000 kph
- Length Approx. 31 m
- Weight 21 tonnes (empty)
- Entry point Unknown
- Boosters (4, detached after liftoff)

Sources:
NASA, SpaceNews,
Orbit.ing-now.com


AFP 

Diagram of the Chinese Long March 5B rocket, part of which is expected to make an uncontrolled re-entry into the Earth's atmosphere Saturday or Sunday.

'Nation of science'

Space has become the latest theatre for the big power play between China and the United States.

The launch of China's first module of its "Heavenly Palace" space station in April—housing life support equipment and a living space for astronauts—was a milestone in Beijing's ambitious plan to establish a permanent human presence in space.

President Xi Jinping called it a key step in "building a great nation of science and technology".

With the retirement of the International Space Station after 2024, China's could become the only space station in Earth's orbit.

Although Chinese space authorities have said they are open to foreign collaboration, the scope of that cooperation is as yet unclear.

The European Space Agency has sent astronauts to China to receive training in order to be ready to work inside the Chinese space station once it is launched.

China also said in March it was planning to build a separate lunar space station with Russia.

The facility, planned for either the surface or in the orbit of the Moon, would house experimental research facilities and would be Beijing's biggest international space cooperation project to date.

The Long March rocket is not the first time China has lost control of a space craft as it returns to Earth.

The space laboratory Tiangong-1 disintegrated upon re-entry into the atmosphere in 2018, two years after it had stopped working, though Chinese authorities denied they had lost control of the ship.

© 2021 AFP

Citation: China says 'extremely low' risk of damage from rocket debris (2021, May 7) retrieved 25 April 2024 from <https://phys.org/news/2021-05-china-extremely-earth-rocket-re-entry.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.