

Image: China's space station Tiangong-1

January 11 2018



Credit: A. Figer

This vivid image shows China's space station Tiangong-1 – the name means 'heavenly palace' – and was captured by French astrophotographer Alain Figer on 27 November 2017. It was taken from a ski area in the Hautes-Alpes region of southeast France as the station passed overhead near dusk.

The station is seen at lower right as a white streak, resulting from the exposure of several seconds, just above the summit of the snowy peak of Eyssina (2837 m altitude). Several artefacts in the original have been removed.

Tiangong-1 is 12 m long with a diameter of 3.3 m and had a launch mass of 8506 kg. It has been unoccupied since 2013 and there has been no contact with it since 2016.

The craft is now at about 280 km altitude in an orbit that will inevitably decay some time in March–April 2018, when it is expected to mostly burn up in the atmosphere.

"Owing to the geometry of the orbit, we can already exclude the possibility that any fragments will fall over any spot further north than 43°N or further south than 43°S," says Holger Krag, head of ESA's Space Debris Office.

"This means that reentry may take place over any spot on Earth between these latitudes, which includes several European countries, for example."

"The date, time and geographic footprint can only be predicted with large uncertainties. Even shortly before reentry, only a very large time and geographical window can be estimated."

The station's mass and construction materials mean there is a possibility that some portions of it will survive and reach the ground.

In the history of spaceflight, no casualties from falling [space debris](#) have ever been confirmed.

ESA is hosting a test campaign to follow the reentry, which will be conducted by the Inter Agency Space Debris Coordination Committee, a

grouping of the world's top [space](#) agencies including ESA, NASA and the China National Space Administration.

Provided by European Space Agency

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