# Cold War Kosmos 482 debris may land over southern England in rare space relic return



A substantial piece of Cold War space debris, specifically a 500 kg remnant of the Soviet Kosmos 482 probe, is projected to re-enter Earth’s atmosphere with potential landing sites in the United Kingdom, particularly affecting residents south of Cambridge, Ipswich, and Milton Keynes. The re-entry is anticipated to occur between May 9 and May 13. Dr Marco Langbroek, who specialises in orbital object tracking at Delft University of Technology, stated, “We have pinpointed the probable landing strip between 52 north and south latitude,” indicating that this trajectory traverses rural areas of England.

Initial suspicions about the object date back to the probe's launch in 1972, intended for missions to study Venus. However, a failure in its propulsion system rendered it incapable of escaping Earth’s orbit, leading to its eventual fragmentation into four pieces shortly after its launch. During its initial demise, some fragments produced visible fireballs across New Zealand’s sky, though Soviet officials maintained silence regarding any connection.

Currently, experts express uncertainty regarding the precise re-entry trajectory of the debris, contrasting it with more controlled descents managed by contemporary space agencies. As nations grapple with the unpredictable nature of this re-entry, residents in the potential impact zones are left to speculate about the implications of a 50-year-old space relic making its return.

Dr Langbroek clarified the risks associated with the object, noting, “The risks involved are not particularly high, but not zero.” The titanium exterior of the landing module, designed to withstand the extreme conditions of Venus's atmosphere, could contribute to its ability to survive re-entry without disintegrating.

Astronomer Dr Jonathan McDowell, who monitors satellite re-entries, added reassurances regarding safety. “The vehicle is dense but inert and has no nuclear materials. No need for major concern, but you wouldn't want it bashing you on the head.” He estimated a “one-in-several-thousand chance of hitting someone,” stressing that normally, impacts from such debris typically occur over oceans, covering more than 70% of the Earth’s surface.

As the module descends at speeds of around 17,000 miles per hour, it will experience significant atmospheric compression, creating a shock wave and a fiery trail. This descent will ultimately halt at speeds estimated between 145 to 157 miles per hour, although its parachute—if still functional—was meant to mitigate the impact rate.

New data from Dutch satellite tracker Ralf Vandebergh provided insights into the state of the debris, capturing high-resolution images of the satellite. He speculated on the possibility that a parachute may have already deployed in orbit, raising concerns about the likelihood of damage during re-entry. Dr McDowell emphasised the severe consequence of a ground impact, likening it to the force of a car falling from the sky at high speeds.

At present, citizens across southern England, along with numerous other global residents, find themselves linked by this rare occurrence, awaiting the outcome of a decades-old Soviet mission.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.orbitalfocus.uk/Diaries/Launches/Launches.php?year=1994> - This source provides detailed orbital data for Kosmos 482, including its launch date, mass, and predicted re-entry date, corroborating the information about the probe's launch and expected re-entry between May 9 and May 13, 2025.
2. <https://www.orbitalfocus.uk/Diaries/Launches/Launches.php?year=2000> - This source offers additional orbital data for Kosmos 482, supporting the details about its trajectory and re-entry predictions, including the expected re-entry date in May 2025.
3. <https://www.universetoday.com/141742/spot-a-failed-soviet-venus-probe-in-earth-orbit/> - This article discusses the history of Kosmos 482, including its launch in 1972, mission failure, and the subsequent fragmentation of the probe, aligning with the article's mention of the probe's launch and fragmentation shortly after its launch.
4. <https://www.express.co.uk/news/science/1092530/Spacecraft-crash-soviet-venus-space-probe-cosmos-482-crash-earth> - This source details the malfunction of Kosmos 482's engine, which led to its failure to escape Earth's orbit and eventual fragmentation, supporting the article's claim about the probe's propulsion system failure and fragmentation into four pieces.
5. <https://www.inews.co.uk/news/science/soviet-space-probe-kosmos-482-falling-earth-when-hit-264622> - This article provides information on the uncertainty regarding the precise re-entry trajectory of Kosmos 482, contrasting it with more controlled descents managed by contemporary space agencies, aligning with the article's mention of experts expressing uncertainty about the re-entry trajectory.
6. <https://www.universetoday.com/141742/spot-a-failed-soviet-venus-probe-in-earth-orbit/> - This source includes insights from Dutch satellite tracker Ralf Vandebergh, who captured high-resolution images of Kosmos 482, supporting the article's mention of Vandebergh's observations and concerns about the likelihood of damage during re-entry.
7. <https://news.google.com/rss/articles/CBMiuwFBVV95cUxQcWFVRWFoeHhPd2xhQldwdURwdVpVUzRRcFdtY0NHbkNkT1Y3QjhSYXBySFNqTUl4M0hoQXVyYTNxVm5KTy1OZDRqc193NFRjczVtU3NBb2NCSmg1LVJSWVU5dTVHdGpsR25GSVVxYm9QZGxOY0l6Nmk1LXZTXzZKalhzN1laSVgzVzdVWndvZXQ1Z0h3N2pRZ0luZzRXYTN5czktckZqaUNUamJKcjcyNFFzMUVqMUpTZmpB?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data