

Airbus seconds from disaster over Moscow

Russia

Charles Bremner

A giant Airbus carrying 448 people came within seconds of crashing into a Moscow suburb when its pilots failed to realise how near the ground they were.

A controller had to intervene as a flight deck alarm barked: "Terrain ahead, pull up!"

Still eight miles from Domodedovo airport, the Emirates A380 was banking in a turn 395ft (120m) above the ground — only one and a half times its wingspan — when the captain realised the error and slammed on power to abort the approach and climb to safety.

Details of the near disaster have emerged after an inquiry. Flight EK-131 from Dubai was flying towards the air-

port in good weather in the dark in September 2017 with the 39-year-old co-pilot at the controls, monitored by the 54-year-old captain.

Under a heavy workload, the co-pilot descended and turned the "super-jumbo" to intercept the instrument landing system, the radio beams that guide aircraft towards the runway.

However, the radio signal was unreliable as the aircraft was too far away, and the co-pilot continued to descend, believing he was on the normal path. He failed to check the altitude with his instruments, the investigators of the United Arab Emirates Civil Aviation Authority said.

"The commander... was concentrating on communications with air traffic control to such an extent that his situa-



tional awareness of what was occurring in the cockpit and of the actual aircraft state was significantly degraded," the report said. With the jet at 195mph, dropping at 1,600ft per minute and about 25 seconds from hitting the ground in Gorkiy Leninskiye, the con-

troller ordered the pilots to halt their descent. However, the Russian's command of English meant he had to repeat the instruction three times.

The captain applied thrust to climb as the automated terrain warnings began blaring in the cockpit. The plane, weighing well over 300 tonnes, continued to descend for more than 100ft after power was applied.

In their second attempt to land the crew made errors setting up their automated system and aborted again, circling to land safely at their third try.

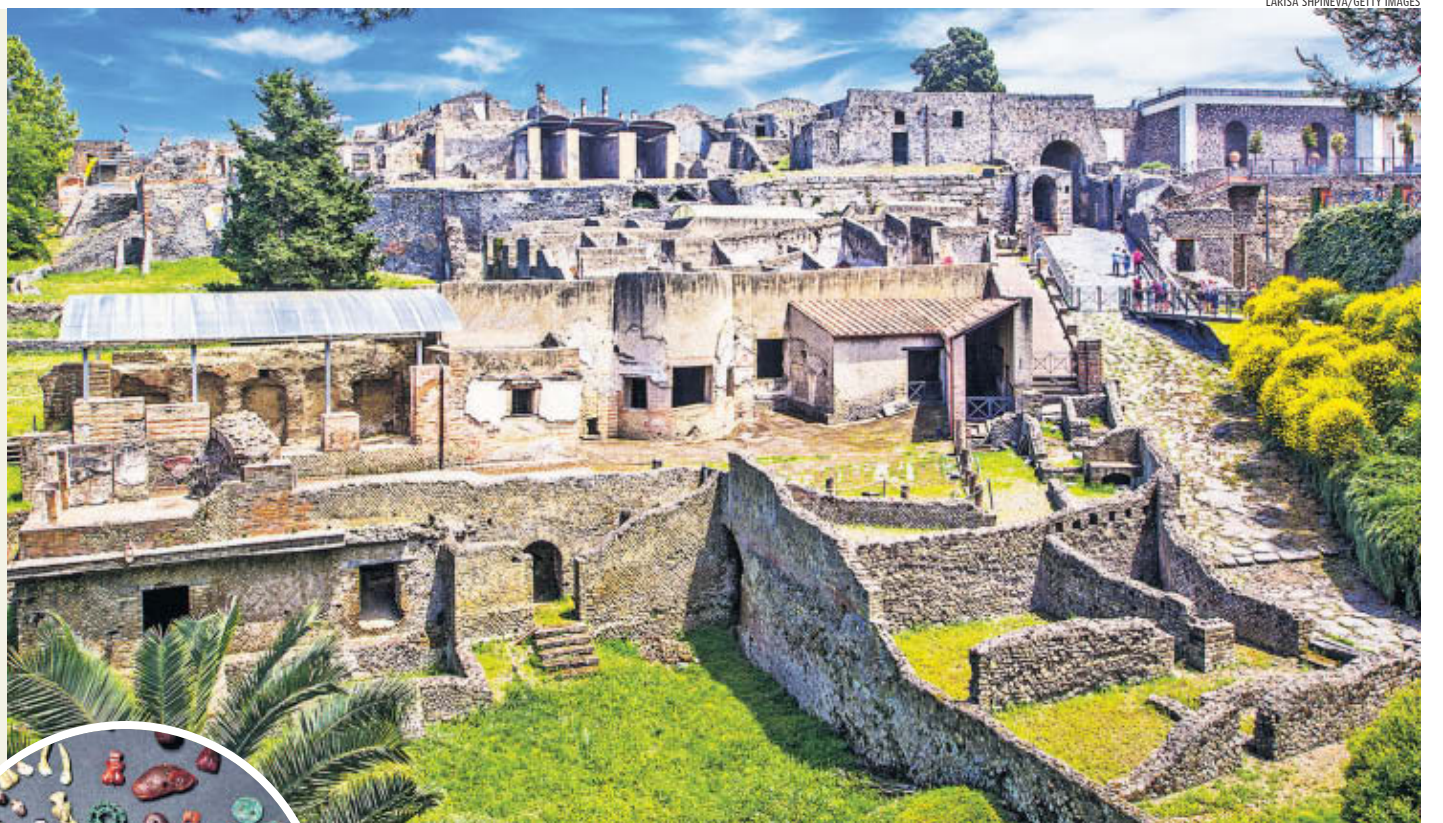
The investigators had no voice recording of the incident because it had been overwritten by sound from the return flight but investigators pieced together details from the black box and tapes from air traffic control. The re-

port criticised the crew for failing to report the incident immediately, which would have preserved the recording.

The investigators depicted the near-accident as the latest in a series of serious incidents caused by pilots' inability to keep pace with modern automated flight systems. However, it blamed the crew for poor judgment due to "insufficient communication and co-ordination between them".

The co-pilot became "erroneously focused" on readings that "supported... his expectation that the aircraft was high", the inquiry found, adding that the captain's "stress level may have reached a point that led to anxiety and a reduction in his performance."

The passengers were unaware of how close they came to death.



LARISA SHPINEVA/GETTY IMAGES

Uncover secrets of Pompeii from home

Drones and laser scanners are being used to immortalise corners of ancient Pompeii and Herculaneum not seen since Vesuvius erupted in AD79, and to offer virtual tours while the sites are closed to visitors (Tom Kington writes).

At Pompeii, footage has been posted on YouTube from a drone

swooping over and through buildings uncovered in a recent dig but yet to open to the public, offering close-ups of mosaics and frescoes. The drone descends into one known as the House with the Garden, where 11 victims of the volcano were discovered along with a cache of 100 amulets for magic rites and



Drone footage gives an aerial view of Pompeii, and amulets found in the House with the Garden, left

pendants featuring skull icons and phallic symbols. Frescoes show Venus and Adonis. Casts of the roots of long dead

plants are being taken in the garden to allow it to be replanted as it was. The drone tour also takes in the House of Orion, which features a mosaic of a half man, half scorpion with butterfly wings and flaming hair.

At Herculaneum,

Pompeii's smaller neighbour, Francesco Sirano, the director, has spent the lockdown posting video tours of the seaside city, which have drawn 140,000 online viewers.

On Friday the team released an online 3D reconstruction of the

city created with photographs, drone footage and laser scanning. For virtual visitors, extra detail inside individual houses will be added every week, starting with the House of the Beautiful Courtyard and its still-intact frescoes.

Anzac Day tribute to lost bomber crew

Australia

Bernard Lagan Sydney

The faces of the young Australian Lancaster bomber crew are a study of anxious preoccupation — all are looking away from each other.

They were captured in the painting *Bomber Crew* by the Australian war artist Stella Bowen who first made sketches of the men as they prepared for take off from a Royal Air Force base at Binbrook in Lincolnshire on April 27, 1944.

Contemplating that night's mission over Germany, the men expressed no special interest in Bowen's attempt to draw them but their bravery and youth captivated her, according to the Australian War Memorial, which has the painting in its collection.

Their flight took them over Fried-

richshafen, an industrial centre on Lake Constance in southern Germany. By the morning, Bowen's subjects were reported missing.

The artist had made only initial sketches and returned to her London studio to finish the painting. She wrote: "It was horrible having to finish the picture after the men were lost. Like painting ghosts."

The image of the lost crew of Australia's No 460 Squadron, has been reproduced on a stamp released by Australia Post for Anzac Day on Saturday, the national day of remembrance in Australia and New Zealand. The Australian War Memorial notes:



"The crew is depicted in front of the menacing image of their Avro Lancaster bomber, looming above them like a bird. Their names appear on the helmets and are repeated on the wreath-like ribbon that scrolls across the canvas, complete with their RAAF wings floating like cherubs."

Pilot Officer Thomas Lynch, a rear gunner, was the only survivor. He wrote in his diary: "I woke up in hospital on the 5th of May 1944 in a place I was later to learn was Baden-Baden." A nurse told him that his war "was over". It was only when she left the room that he learnt that his right leg had been amputated.

Russian rockets grounded as £20m goes into a black hole

Tom Parfitt Moscow

Production of Russia's new-generation rocket intended to take cosmonauts to the International Space Station has suffered a setback after about £20 million of the budget disappeared.

Prosecutors have opened a criminal investigation into the wasted funds at the Khrunichev State Research and Production Space Centre in Moscow, where the Angara-class rockets are being built.

It is alleged that the money was spent on two high-precision Italian welding machines. These were bought during the refitting of a factory to be used for serial production of the Angara, a law enforcement source told the *Izvestiya* newspaper. The machines were not

on the official register of required equipment, and were never used. The former director of the Khrunichev Centre is under investigation over the missing money.

The Angara A5, which was test-launched in 2014, is being developed to replace the Proton-M as Russia's heavy-lift rocket, capable of carrying payloads bigger than 20 tonnes into orbit. Besides transporting crews to the space station, Angara will be used to launch Russian military, civilian and international commercial satellites.

The project, approved by the Russian government in 1995, has suffered a series of delays, and three years ago it emerged that about £200,000 had been embezzled by the executives of a contractor working on the project.