Landslip was factor in Chernobyl blast, expert says

By Nick Nuttall
Technology Correspondent

The Soviet nuclear disaster at Chernobyl was caused by land subsidence and mistakes in civil engineering rather than by scientists involved in unauthorized experiments, an expert on satellite imaging claimed yesterday.

The new evidence contradicts the official versions of the world's worst nuclear accident. Mr Peter Fend, an American expert in satellite imaging, who presented the evidence to a gathering of United Nations-backed scientists in Venice, said the explanations given by Soviet and Western governments were crucially flawed.

He also alleged that there had been a deliberate cover-up to suppress the truth, particularly by West Germany.

Mr Fend claimed the German authorities had confiscated satellite pictures, providing crucial evidence that official versions were wrong, from one of their own scientists.

Various reasons could lie at the heart of these attempts to hide the truth, he said — not least the risk posed to a string of other Russian reactors along the banks of the Pribyat river, where Chernobyl was built, by land slip and subsidence. He feared they, too, had been built on unsound ground and might have shaky foundations.

According to scientists at the Open University in Milton Keynes, Buckinghamshire, Mr Fend's New York-based company, Ocean Earth, is recognized internationally for its supply and analysis of satellite images of river and ocean basins.

Evidence for Mr Fend's claims are based on a series of satellite pictures taken before, during, and after the Chernobyl disaster in April 1986. The shots reveal a dark line cutting across the reactor that officials, including the US Geological Survey Department, maintained was the shadow of a smoke plume cast across the area as the nuclear pile burned.

Mr Fend, however, is convinced that the dark slash is a fault in the land, which gave way under the weight of the Chernobyl plant, causing the collapse of Reactor 4. He said the prevailing winds at the time were blowing in the wrong direction for the contention that the dark line was a smoke shadow to be sustained.

Mr Fend argues that the line was still in place more than two weeks after the explosion, although the fire had long since been extinguished.

Further evidence that planners in Moscow sited the plant on unsafe ground comes from scientists at the Open University. Dr Steve Drury, of the Earth Sciences Department, said yesterday that his researchers discovered that the dark line was faintly but clearly revealed in satellite photographs taken before the accident.

Dr Drury said this refuted the smoke plume claim, and a subsequent claim by Soviet authorities that the dark line was caused by blast damage.

There is a growing conviction among scientists that the expanding dark line is evidence of water seepage from the river into a land fault, and that this was what triggered a land slip. The sand and clay ground probably also had peat deposits that made it unstable.

The Health and Safety Executive's Nuclear Installations Inspectorate in London disputed Mr Fend's claims, saying its officials agreed with the International Atomic Energy Authority, which backs the Soviet Government's explanation that human error and unauthorized experiments were to blame.

The Times, London 27 September 1989 re Fend and Ocean Earth

The story is somewhat inaccurate: the fault, or error, was not a problem of geology but one of hydrology. A large building requiring a stable foundation was placed in the middle of a river path, on top of an artificial landfill, with the meandering river being diverted and, to further weaken the site, a large reservoir placed immediately downstream, as a cavity subject to distension. Fend was never interviewed for this story, which was followed up elsewhere.

The authoritative imagery appears in the Oxford University Press and European Space Agency publications on Chernobyl.