

# [News story: Cassini: an incredible journey of exploration](#)

Having used almost every bit of fuel it carried to Saturn, operators are plunging Cassini into the planet to ensure Saturn's moons will remain pristine for future exploration.

The UK has been heavily involved in the ESA/NASA mission, providing £8 million in funding for building vital instruments, plus on-going support for operational costs.

The Cassini-Huygens spacecraft embarked on a seven-year voyage across the Solar System, eventually reaching Saturn in July 2004. Several months later, the Cassini orbiter released ESA's Huygens probe, which landed on Titan on 14 January 2005 – the first landing in the outer Solar System.

## **Cassini – UK involvement**

- Magnetometer: Led by David Southwood, then Michele Dougherty, at Imperial College London. The Magnetometer measures the magnetic field
- Composite Infrared Spectrometer (CIRS): Co-Ied by Simon Calcutt, Peter Ade, Pat Irwin and Fred Taylor at Oxford University and Peter Ade at Queen Mary University of London. Measures infrared thermal radiation
- Cassini Plasma Spectrometer (CAPS): Co-Ied on the Electron sensor unit by Andrew Coates, Mullard Space Science Laboratory and by Manuel Grande, Aberystwyth University. Measures the auroral environment and activity
- UK academics also contributed to work on the Radio Plasma Wave Instrument, Imaging Science Subsystem (ISS) and Cosmic Dust Analyser (CDA).

## **Huygens – UK involvement**

- Surface Science Package (SSI): Led by John Zarnecki, Open University. Co-Ied by Simon Green, Open University. A package of 9 sensors to determine the physical properties of the Huygens landing site.
- UK industrial involvement included LogicaCMG and Irvin-GQ for the flight control and parachute manufacture.
- In April 2017, Cassini was placed on an impact course that unfolded over five months of daring dives – a series of 22 orbits each passing between the planet and its rings. Called the Grand Finale, this final phase of the mission has brought unparalleled observations of the planet and its rings from closer than ever before.

Katherine Wright, Head of Space Science said:

Cassini-Huygens has been an incredible journey of exploration and we are very proud to have supported the UK scientists and engineers

who have led many of the discoveries from this mission. It is sad to see the end of this expedition but its data legacy will keep on producing first class science for many years to come.

Professor Michele Dougherty, from Imperial College London, who took over the management of the Magnetometer from Professor David Southwood, said:

“The Cassini mission has been spectacular on a whole range of fronts, the science it has achieved, the way in which the spacecraft and instruments have operated way beyond their planned lifetime and how the large international team from many different countries and cultures have come together and worked to produce the results we have.

“I will have a range of emotions at the end: sadness that such an endeavor has come to an end, great pride in what we have all achieved together and a bit of relief since I am now exhausted and can't keep this end-of-mission pace up forever!”

[Watch the climax of the Grand Finale](#), as Cassini plunges into Saturn's atmosphere from 12 noon to 1.30pm (BST) on Friday, 15 September.