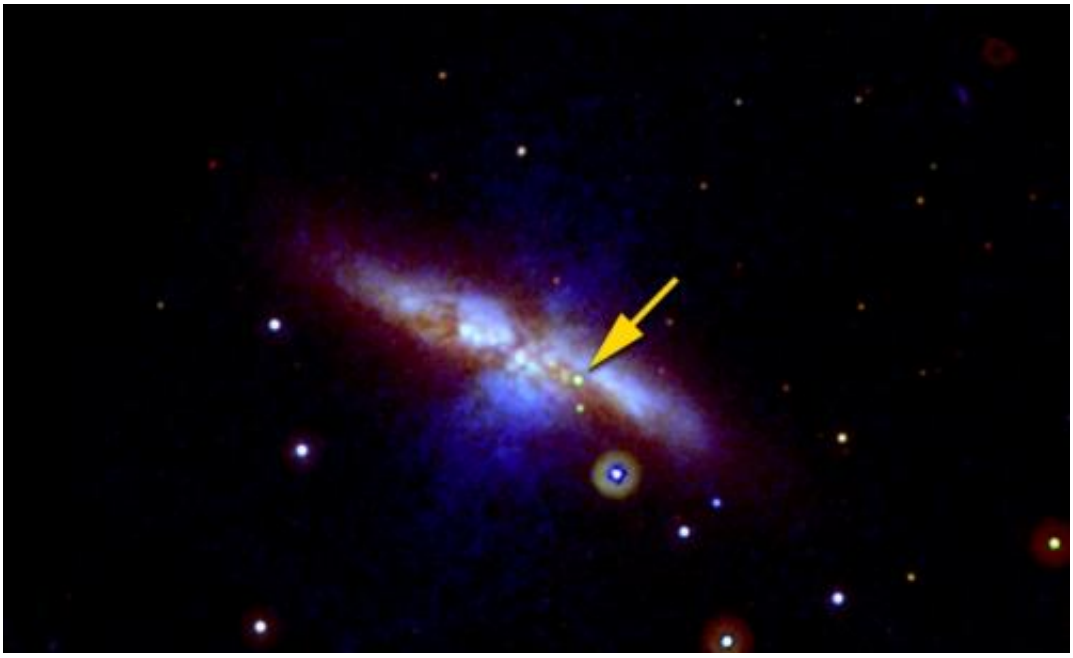
Swift satellite gets ringing endorsement from NASA

May 28 2014



Credit: NASA/Swift/P. Brown, TAMU

An astronomical satellite, of which the University of Leicester and the Mullard Space Science Laboratory of University College London are key partners, has received a ringing endorsement from NASA.

Every two years NASA reviews the scientific performance of its astronomical satellites in order to decide whether they should continue in operation and what their funding level should be. This month NASA has

released its most recent report which ranks Swift top out of the nine satellites - even though almost all of the others were launched more recently than Swift.

The Swift satellite discovers and measures gamma-ray bursts, the most powerful explosions in the universe. When a very massive star dies, and when two neutron stars collide, it is likely that a new black hole is formed. It is this process which makes the gamma-ray bursts. Because they are so powerful, the bursts can be seen from the most distant parts of the universe, enabling astronomers to study how galaxies in the early universe are different from those around us now.

The Swift satellite includes an X-ray camera provided by the University of Leicester and a UV-optical telescope substantially provided by the Mullard Space Science Laboratory of University College, London. These instruments have been providing vital measurements of the afterglows of the gamma-ray bursts successfully since Swift was launched in November 2004.

The May 2014 NASA Senior Review said: "Swift is the premier facility for multi-wavelength time domain astronomy in the world", and "Swift continues to provide unique and exciting science both as stand-alone results and as part of multi-wavelength campaigns". The review commended Swift's broad and responsive scientific programme, working together with other world-leading observatories, aiming to find the origin of short gamma-ray bursts, to explore the universe when it was less than 5% of its current age, performing surveys of supernova explosions to study the expansion of the universe, and making unique searches for rare types of cosmic explosions.

As a result of the 2014 Senior Review Swift will continue to collect new observations of the universe for at least the next two years, and probably the two years after that too. In the UK Swift work at the University of

Leicester and at MSSL was recently awarded funding for a further two years by the UK Space Agency, allowing UK scientists to work on the exciting results that Swift provides.

Professor Julian Osborne, leader of the University of Leicester Swift team, said: "This is a ringing endorsement of the work we have been doing, and a great tribute to the international Swift team. To be ranked first after more than nine years in orbit is a remarkable result. It shows the very high scientific value of searching the sky for new X-ray sources."

Provided by Sonoma State University

Citation: Swift satellite gets ringing endorsement from NASA (2014, May 28) retrieved 27 April 2024 from https://phys.org/news/2014-05-swift-satellite-endorsement-nasa.html

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