Stan Love

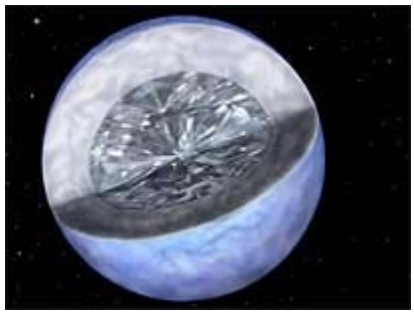
From: stan@wribiz.net
Sent: Friday, February 22, 2008 10:32 AM
To: HOME@WRIBIZ.NET
Subject: FW: article for newslatters

-----Original Message-----
From: RICHARD LACKMOND [mailto:dlackmond@msn.com]
Sent: Friday, February 22, 2008 10:02 AM
To: stan love; julie frink
Subject: article for newslatters

HERE IS AN ARTICLE I FOUND IN THE mAGMA(CAROLINA MOUNAIN ROCK CLUBS) WEBSITE. tHOUGHT IT WAS UNIQE ENOUGH TO REPRODUCE AS WE NEED.

Diamond star thrills astronomers

Twinkling in the sky is a diamond star of 10 billion trillion trillion carats, astronomers have discovered.



A diamond that is almost forever

The cosmic diamond is a chunk of crystallised carbon, 4,000 km across, some 50 light-years from the Earth in the constellation Centaurus.

It's the compressed heart of an old star that was once bright like our Sun but has since faded and shrunk.

Astronomers have decided to call the star "Lucy" after the Beatles song, Lucy in the Sky with Diamonds.

Twinkle twinkle

"You would need a jeweller's loupe the size of the Sun to grade this diamond," says astronomer Travis Metcalfe, of the Harvard-Smithsonian Center for Astrophysics, who led the

team of researchers that discovered it.

The diamond star completely outclasses the largest diamond on Earth, the 546-carat Golden Jubilee which was cut from a stone brought out of the Premier mine in South Africa.

The huge cosmic diamond - technically known as BPM 37093 - is actually a crystallised white dwarf. A white dwarf is the hot core of a star, left over after the star uses up its nuclear fuel and dies. It is made mostly of carbon.

For more than four decades, astronomers have thought that the interiors of white dwarfs crystallised, but obtaining direct evidence became possible only recently.

The white dwarf is not only radiant but also rings like a gigantic gong, undergoing constant pulsations.

"By measuring those pulsations, we were able to study the hidden interior of the white dwarf, just like seismograph measurements of earthquakes allow geologists to study the interior of the Earth.

"We figured out that the carbon interior of this white dwarf has solidified to form the galaxy's largest diamond," says Metcalfe.

Astronomers expect our Sun will become a white dwarf when it dies 5 billion years from now. Some two billion years after that, the Sun's ember core will crystallise as well, leaving a giant diamond in the centre of the solar system.

"Our Sun will become a diamond that truly is forever," says Metcalfe.