Breaking light's speed limit described in *New Scientist*, 18 Aug 2007, p8. Two German physicists have propelled photons (particles of light) across a gap between two prisms at a speed much faster than light - something Einstein's special theory of relativity claims is impossible. Gunter Nimtz and Alfons Stahlhofen, of the University of Koblenz, were investigating a phenomenon called quantum tunnelling. They were using microwaves rather than visible light, but microwaves are part of the electromagnetic spectrum that includes visible light and therefore have the same speed limit. Their experiment involved setting up two prisms with a one metre (3ft 3in) gap in between and beaming microwaves from the side of one prism. Some of the microwave photons travelled through one prism, across the gap, then through the other prism to a microwave detector. The rest of the beam was reflected within the first prism and bounced back to another detector. Although the two parts of the split beam had travelled different distances the two detectors registered their arrival at the same time. This means the beam crossed the gap so fast that the detectors couldn't measure. If the beam had travelled at the speed of light the detectors would have registered this. Gunter Nimtz commented: "For the time being, this is the only violation of special relativity that I know of."

Editorial Comment: Einstein's theories claim that the speed of light is a constant, i.e. it cannot be changed. However, in the last few years scientists have been able to slow light down to almost zero, and now they have managed to get to almost infinitely fast. If human scientists can get light to change its speed then it is no trouble for God, who created light, to vary its speed. Records of the speed of light made over the last four centuries indicate that its speed was faster in the past. The speed of light is a factor in many measurements used to estimate the age and size of the universe, but scientists making these estimations have assumed the speed of light never changes. The experiments described above challenge this belief. If faster speeds for light were put into the age calculating equations they would give much younger dates. (Ref. physics, radiation, electromagnetism)

10th October 2007