

PHYSICISTS CONFIRM: "TIME-TRAVEL MAY BE POSSIBLE VIA 'WORM HOLES'"

IN an article by their Science Correspondent in the London *Daily Telegraph* of November 23, 1988, interesting details were given of a paper recently published in the highly respected journal *Physical Review Letters* by three top American scientists, Prof. Kip Thorne and Prof. Ulvi Yurtsever of the California Institute of Technology, and Dr Michael Morris, of the University of Wisconsin, at Milwaukee. They say that, by means of 'worm holes', a sufficiently advanced technological civilization might be able to perform Time-Travel into the Past and make instantaneous journeys by spaceships to distant regions of the Universe. They say that 'worm holes' — actual holes in the structure of Space and Time — exist throughout the Universe.

They say that a message or a spaceship could in theory be "sent through a 'worm hole'", and emerge instantly in a different part of Space or Time.

As Dr Michael Morris explained: "Worm-holes are sub-microscopic objects, but an advanced technology might be able to enlarge them to a size where they would be useful".

Their paper suggests a way in which starships, by travelling instantaneously, could one day bypass the law that forbids faster-than-light travel.

Two 'worm-holes' separated by vast distances would in theory "create a tunnel through Space-Time between them". This would enable a spaceship or a message to make journeys that would be totally impossible in conventional physics.

It would also make time-travel possible. Said Dr Morris: "Travelling into the past has hitherto been considered inherently impossible, because it would enable you to murder your parents before they met, and you would cease ever to have existed.

"But this impossible paradox is avoided in our interpretation of Einstein's General Theory of Relativity. We suggest the existence of an infinite number of *parallel universes*, so that the past you travelled into would be a different past from that in which you grew up."

The three scientists draw attention to the "Many Worlds Theory" of the physicist Hugh Everett, and proposed by him in 1957, which suggests that the Universe is continually branching out into different "states".* There would, for example, be another Universe, just as real as our own, in which Mr Dukakis,

and not Mr Bush, had been the winner in the last American Presidential Election!

Dr David Deutsch, a British physicist, of the Mathematical Institute at Oxford, said recently that these 'branchings of reality' might be detectable by a super-computer — a machine far more sensitive than the human mind, that could perform 10,000 million calculations per second.

Summing up, Dr Morris said: "Our theory is all very speculative. A new idea might, of course, emerge that would prove it impossible. But such speculation is valuable, since it encourages physicists to explore the Universe in new ways."

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* NOTE BY EDITOR

For our previous discussions of these advanced problems of Physics, see the various articles by FSR Consultant Paul Whitehead:—

- FSR 31/1. "From Atoms To Tachyons And Hyperspace — And Back Again!"
- FSR 31/2. "The Parallel Universe & Other Dimensions".
- FSR 31/3. "A Look at the Search for Extraterrestrial Intelligence".
- FSR 31/4. "Science Comes Under Attack — and the 'Hologram Universe' is proposed".
- FSR 31/5. "Spinning Saucers Gain Credibility".
- FSR 31/6. "Other Worlds — Fact, Fiction, Or Beyond Human Comprehension?"
- FSR 32/1. "Life on Mars, UFOs, SETI, SETA — and Scientist claims the Paranormal is for Real!"
- FSR 32/1. "Aliens, Laser Beams and Clones".
- FSR 32/2. "From Dust, Alien Consciousness May Arise!"
- FSR 32/3. "Mind and the New Physics".
- FSR 32/3. "Scientists Confirm: There May Be a Parallel Universe".
- FSR 33/1. "The Debate on Extraterrestrial Life 'hots up'".
- FSR 33/1. "Manned Flight to Alpha Centauri Proposed".
- FSR 33/1. "World Without End — Amen".
- FSR 33/3. "Cosmology, UFOs, CEAs and the Fourth Dimension".
- FSR 34/1. "Wormholes and Faster-than-Light Travel: Latest News".
- FSR 34/2. *Book Review*: Dr Jacques Vallée's "DIMENSIONS".

(See also: FSR 32/5. Rev. Donald Thomas: "Parallel Worlds". *Recent Comment from an eminent Oxford Physicist.*)

THE END OF A CHAPTER?

Gordon Creighton

As all of our information media continue to bombard us with depressing reports about the Ozone Layer; the "Greenhouse Effect"; the melting Ice-Caps and the rising seas; the rapid loss of the Earth's great tropical rain-forests; the massive pollution of land and sea and atmosphere; the terrifying overpopulation of the Earth by Man, the Great Predator; and the accelerating destruction of numerous other species of life, it is evident that many — even among the great unthinking masses of humanity — are beginning to perceive that "SOMETHING IS HAPPENING". And, here and there among them, the more perceptive ones are even starting to see that the close of one of the *Great Chapters in the Book of Life on Earth* may be at hand. Should this indeed be so, then it is nothing new!

For these things have occurred repeatedly before. For what we are discussing is "Catastrophism", and we know that the old-fashioned Victorian idea of "Gradualism", once so dear to the hearts of such folk as the geologist Lyall, has now been totally discarded. Today we already know, from the scientific evidence, of at least 77 reversals of the Earth's Poles.

Firstly, there is the problem of the actual wandering of the physical Poles, and this is no doubt connected with the slow processes of Continental Drift and the movements of the Plates. Secondly, as stated already, there is the question of the *magnetic* reversals. It seems that there have been about twenty of these in the last 4,500,000 years, which gives us a rate of *about one reversal every 200,000 years, on an average.* There

have been found to be several sorts of time-interval between them. One of the intervals is of about 700,000 years, while another is of about only 10,000 years. *The longest interval yet discovered by our scientists happens to be in fact our current interval, as it seems that the last big reversal was about 690,000 years ago, though the scientists Folgheraiter and Mercanton have also found a brief period of reversal about 3,000 years ago.*

Findings of scientists in the Geological Department of the University of Minnesota (published in the London *Sunday Times* of July 15, 1984) indicate that a new "flip" is indeed pending. *They found that the Earth's magnetic field has halved in strength over the past 4,000 years. The actual reversal may, the scientists say, "take a few years, or a couple of thousand if History is any guide".*

Clearly, when it does happen, magnetic compasses will be useless for navigation during the change, and the protection which the Earth's magnetic field at present gives us against solar radiation could be altered, no doubt bringing major changes in climate (such as we are already experiencing).

Clearly, also, all creatures that utilize the Earth's magnetism for their navigation — birds, fish, and honey bees for example — will be thrown into utter confusion and their survival will be in doubt. And what about ours? (Incidentally, we have heard of all sorts of theories about the cause of the extinction of the dinosaurs — such as the explosion of a Supernova. But this magnetic field reversal might also have been the cause.)

All life is lived on a razor's edge

All life is miraculous and perilous, anyway, and we live on the razor's edge. In an earlier article, "*Will The Earth Be Struck Again Soon?*" (in FSR 30/5, 1985), I gave an outline of the views of Dr Allen Hynek and fellow-astrophysicists regarding a further danger with which our planet is faced — *and has always been faced* — namely the possibility of another major strike soon by an asteroid or a comet, from which it seemed pretty evident that a good many astronomers think we might 'cop' something quite nasty again before very long.

Such a view has recently received much confirmation. In his article, *The Dynamics of Armageddon*, published in the journal *ASTRONOMY NOW*, the Oxford University astrophysicist Dr Victor Clube has pointed out that, since about 1970, the previous scientific thinking about the likelihood of great geophysical disasters on our planet have been revised most drastically. He says that it is now perceived that, even

within the tiny span of recorded history, the impact or near passage of comets have had quite startling effects upon the Earth.

Comet Encke, and another near-miss by an asteroid

Subsequently, on October 24, 1988, in an article in the London *Daily Telegraph*, Dr Clube showed that, in particular, COMET ENCKE, which, with its million-mile swathe of debris *intercepts Earth's orbit once every 3.3 years (!)*, represents a terrible danger to this planet, and he adduces cogent evidence to show that in both the 5th century A.D. and the 11th century A.D., there were what he calls veritable "waves of attack" against the Earth by Encke. He also thinks, incidentally, that the famous "*Tunguska Phenomenon*" of 1908 was almost certainly a large chunk of ice about 40 yards wide and weighing some 30,000 tons, which had got detached from Encke's Comet.

But now (*Daily Telegraph*, April 21, 1989) we learn that our Earth has just narrowly escaped being struck by a fresh, *totally unknown*, asteroid weighing some 400,000,000 tons, which passed within half-a-million miles of us in March of this year! Dr Henry Holt, the Northern Arizona University astronomer who discovered this "beastie", using the Mount Palomar Optical Telescope, says that the thing had come in from the direction of the Sun, so that the Sun's glare had prevented anyone from detecting its approach sooner, and that, "*If it had appeared only a few hours earlier, it would have nailed us*".

"Half-a-million miles from Earth" means that, as it passed us, the size of the gap separating the asteroid from us was only twice the distance from the Earth to the Moon.

In 1937 the asteroid HERMES (400 million tons) also came within half a million miles of us. If we are to go on having many such "close shaves", then assuredly it can only be due to some Very High Guidance — in other words DIVINE PROVIDENCE. But — can we always count on it? IF WE ARE WORTH PRESERVING, MAYBE SOMEBODY WILL CONTINUE TO SEE TO IT THAT WE ARE PRESERVED.

As we contemplate these Immensities, we realize more acutely than ever that ALL OF LIFE IS LIVED UPON A RAZOR'S EDGE. What the purpose of our existence here is, not one of us knows, but we can be certain that *we are here because we are useful to Somebody or to Something*. Let us ever be thoughtful and mindful, then, for should we cease to be useful, might not our time be running out?

What do all the signs indicate? Are we not all living on borrowed time now?

TOP EXPERTS FAIL TO SEE EYEBALL-TO-EYEBALL

ACCORDING to a report published in the London *Daily Mail* on July 15, 1989, the top experts of the USA and Britain seem to be at variance on the vexed subjects of aliens and abductions by aliens.

The USA, represented by Mr Walt Andrus, International Director and Associate Editor of the MUFON UFO JOURNAL, was described as firmly asserting that such events as abductions by aliens *are a fact*. For the British side, however, top world expert

J. Randles was reported as saying:-

"We are not a promotion agency for ET. We are here to try to explain scientifically what the public sees."

Pointing out that "different types of aliens have been reported in different parts of the world", J. Randles said that this is "*proof that the whole thing is culture-dependent*".

(So, as we've always told you, it really *is* all in your mind, after all!)

THE SILBURY CORNFIELD CIRCLES (1988)

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Above: Dawn. Friday July 15 1988 First 'Quintuple'

Below: A few days later. Now there are thirteen circles

