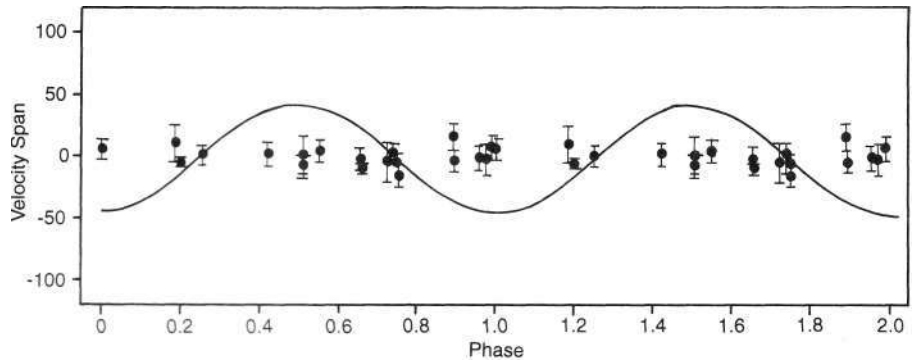


vigorous pursuit of alternative theories. It was right that the planet interpretation should not go unchallenged. . . . In the end we should be impressed by the exquisite care with which Mayor and Queloz examined every alternative interpretation right from the start — the absurd hypothesis of a Jupiter-mass companion in a 4.2-day orbit faced its most severe inquisition from the discoverers themselves'.<sup>1</sup>

Thus there may be a planet orbiting around the star 51 Pegasi after all. To creationists this should neither surprise us nor cause us dismay. The Creator Who made the Solar System is fully capable of having created other planets orbiting other Sun-like stars if He so chose (to manifest his manifold power). However, this would not automatically mean the likelihood of other intelligent life, or even people, on such planets. First, God has not told us of such in His Word. On the contrary, all His creative activity was centred with respect to our Earth as our home, with man made last and



**Figure 2.** A measure of the shape of the spectral lines from star 51 Pegasi, expected to show regular variations (curve) if the star is pulsating, reveals no changes (after Hatzes et al.<sup>8</sup>).

alone in His image. Second, the whole creation (cosmos) is groaning and in travail because of man's Fall into sin on this Earth (Romans 8:19-22), and it was to this Earth the Creator, Jesus Christ, came to die to redeem man, so that He can eventually restore the whole creation (cosmos).

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**Cosmic Snowballs Questioned**

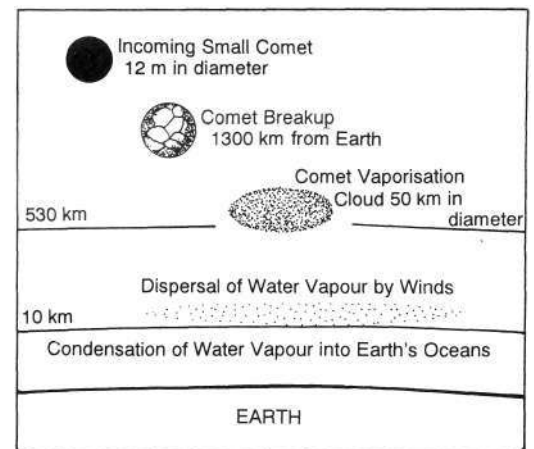
The idea that house-sized comets are continuously pelting the Earth '25,000-30,000 times a day, as previously reported (see Figure 1),<sup>1</sup> has recently been disputed, in front of more than 7,000 geophysicists who gathered in San Francisco December 8-12, 1997 for the annual fall meeting of the American Geophysical Union,<sup>2</sup> and in a paper published in the December 15, 1997 issue of *Geophysical Research Letters* (GRL).<sup>3,4</sup>

It was space physicist Louis Frank of the University of Iowa who first proposed these cosmic snowballs back in 1986 to explain dark spots seen in satellite images of the upper atmosphere — like atmospheric 'holes'. Dismissed as instrument noise 11 years ago by other investigators, early last year Frank triumphantly announced he had found identical

spots in images from a new satellite, Polar, which persuaded a few researchers that perhaps something peculiar was going on in the upper atmosphere.<sup>1,3</sup> Frank's claim also appeared to be supported by the appearance of the same spots not only in his own camera aboard Polar, but also in the Ultra-Violet Imager (UVI) of one of his colleagues on the Polar team, George Parks of the University of Washington, Seattle.

Now the tables seem to have turned, yet again. Parks withdrew his name from the paper, co-authored with Frank, which claimed this two-camera detection, and also made public his own analysis of the spots in his UVI images, suggesting that

the spots behave just like artifacts somehow produced inside the camera. The results were published in his GRL paper.<sup>2</sup> He found, for example, that the number of spots of a given size decreased steadily from the smallest to the largest, just like the noise in lab



**Figure 1.** The fate of hypothesized small comets entering the Earth's atmosphere.

calibration images. Parks has also now repeated the same type of analysis on spots from Frank's visible-light imager and has reported finding the same noise-like behaviour, leading to the conclusion that the spots are internal to the camera.

Frank, not to be out-manoeuvred, has responded that Parks has analysed the wrong spots, insisting that all but the largest dark spots are instrument noise.<sup>2</sup> If the spots are clouds of water from small disintegrating comets, then he reasons that the motion of these clouds across the field of view should add a third spot to the two created by wobble motion of the spacecraft. He found that five of the candidate atmospheric 'holes' in Parks' UVI images had three spots in the triangular

orientation predicted from Polar's wobble. Frank also found that 80 per cent of the large dark spots that he believes are real 'holes' shrank and disappeared around altitudes of 25,000-41,000 km, as expected due to Polar's eccentric orbit.

Parks, among many others, remains unconvinced. He has counter-arguments to all of Frank's evidences. Thomas Donahue of the University of Michigan, Ann Arbor, who has leaned toward accepting the atmospheric 'holes' as real, doesn't think the San Francisco confrontation has changed many minds.<sup>2</sup> The real test is going to come if NASA, as expected, funds more analyses of the data this year, and if Frank releases all his Polar data on CD-ROMs as planned so that other

space scientists can check it all out for themselves.

We won't hold our breaths waiting, particularly as resolution in Frank's favour would boost creationists' arguments for a young Earth.

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#### QUOTABLE QUOTE: The Gospel and Evolutionary Naturalism

*The story of salvation by the cross makes no sense against a background of evolutionary naturalism. The evolutionary story is a story of humanity's climb from animal beginnings to rationality, not a story of a fall from perfection. It is a story about recognizing gods as illusions, not a story about recognizing God as the ultimate reality we are always trying to escape. It is a story about learning to rely entirely on human intelligence, not a story of the helplessness of that intelligence in the face of the inescapable fact of sin.*

*There is no satisfactory way to bring two such fundamentally different stories together, although various bogus intellectual systems offer a superficial compromise to those who are willing to overlook a logical contradiction or two. A clear thinker simply has to go one way or another*

Johnson, Phillip E., 1997. **Defeating Darwinism by Opening Minds**, InterVarsity Press, Downers Grove, Illinois, p. 111.

#### QUOTABLE QUOTE: Cosmology

*'Cosmology is unique in science in that it is a very large intellectual edifice based on very few acts. The strong tendency is to replace a need for more facts by conformity . . .'*

Arp, H. C. *et al.*, 1990. The extragalactic Universe: an alternative view. **Nature**, 346:812.