## COMMENTARY

## How do you spell the end of the world?

## **5-Y-Z-Y-G-Y**

BY DIETRICK E. THOMSEN

Syzygy is supposed to be one of those words that only William F. Buckley Jr. knows how to spell or use properly. The root meaning of the word is a yoking together of opposites or otherwise paired items—intellectual propositions or aeons (divine intermediaries) of opposite gender in Gnostic philosophy. No one denies that Buckley does well at syzygies. In astronomy, syzygy means a yoking together of planets, that is, the appearance of two or more planets in line with one another and the center of the sun. An astronomical syzygy is not something that can be produced by being clever with a typewriter, and yet in the fuss over the so-called Jupiter effect such a tour de force seems almost to have been accomplished.

The Jupiter Effect is the title of a book published in 1974 by John F. Gribbin and Stephen Plageman. Reportedly the book is still in print in a modified edition. The Jupiter Effect predicts that a syzygy of all the

planets due to take place in the first quarter of 1982 will cause serious disasters on earth in the form of earthquakes and other phenomena. The syzygy was expected to cause unusual tides on the surface of the sun because of the line-up of the planets. These tides would engender an unusual number of sunspots which would send excess amounts of charged particles to the earth in the solar wind. These particles would affect the atmosphere in a way that would change the earth's rotation slightly and so would cause earthquakes.

As soon as the book was published scientists with expert knowledge in all the fields involved simply stomped on it (SN: 9/28/74, p. 197; 12/13/75, p. 377). By July 1980, in an article in OMNI, Gribbin had altered his views extensively. Yet now, as the year 1982 begins to unravel, observatories, planetariums and other repositories of astronomical information report an increased tempo of requests for information

about the possibility of disaster. Spokespersons for three of the largest observatories in the United States - Kitt Peak National Observatory, Palomar (Caltech) and Lick Observatory - say that the frequency of questions about the Jupiter Effect has risen to several per week since the beginning of the year; Kitt Peak estimates it receives as many as one a day.

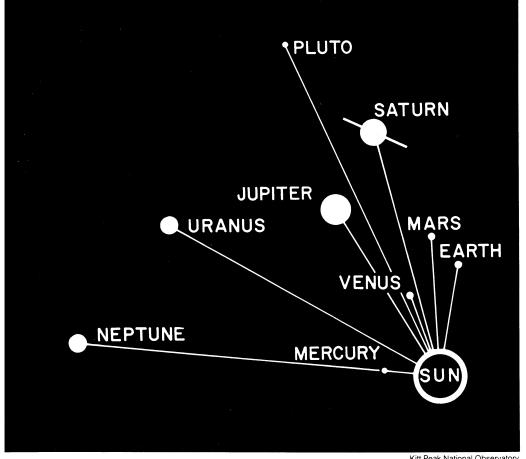
These numbers do not represent a widespread public panic. But given that for everyone who inquires there are likely to be several people who are also concerned but don't know where to ask or lack the nerve, the rate of inquiry testifies to the survival of a significant stream of belief in the Jupiter Effect - refutations and partial retractions notwithstanding.

To recapitulate: It won't happen. There will be no syzygy. The closest the planets will come to a grand syzygy will be on March 10 when they are all located in more or less the same quadrant of the ecliptic. If there were a syzygy, the combined tidal effect of the planets is so minuscule that it would hardly be felt by the sun. Increased sunspots will send more charged particles to the earth, but geoscientists doubt that they could alter the rotation rate or that an altered rotation rate could trigger earthquakes.

On the whole, most scientists would agree that the proposed scenario seems extremely unlikely. However, to say it that way leaves a loophole. If the tentative language customary in science can insinuate doubt where previously there was faith, it can also leave an opening for faith where many doubt. There is a cultic aspect to the Jupiter Effect business, and it is likely to feed on the least little uncertainties.

The Jupiter Effect idea has found its way into religious tracts. One physicist received such a tract while strolling in Sri Lanka. The tract, however, did not come from Sri Lanka; it came from the Canadian province of Alberta. These things get around. This cultishness could persist even after nothing serious happens. In 1844 large numbers of people became convinced that the world was about to end and gathered on rooftops and hilltops on the appointed night for the experience. After nothing happened, most of these millenarians gave up, but a few discovered a satisfying explanation (having to do with an uncertainty in the calculations) and founded a sect that endures to this day still waiting. Similarly, a hard core of Jupiter Effect enthusiasts may elect to wait apprehensively till the next syzygy. They happen every 179 years.

Configuration of the planets on March 10. They are spread over about a quarter circle. This is as close as celestial mechanicians say they will get to a proper line-up



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