times as would occur during the Flood. To assume that Noah's Flood which was strong enough to produce 617 million cubic kilometers of sediment by erosion of the pre-existing topography was no more powerful in its depositional effects than an average modern river seems contradictory at best.

Comment from Nash to Morton

I wholeheartedly agree that one of the most difficult things to understand about the Flood is how the repopulation of the human and animal world as we see it today could have developed from the eight humans and load of animals preserved on the ark in a relatively short period of time.

If every atom increased in size, I assume this goes for all the living organisms also. That means that every living thing was originally much smaller, but had the same mass. How much smaller would a human being have been in this scenario? Also, if different atoms expanded by a different amount, would not the human body, which contains many mineral compounds, suffer the same problem as the earths crust?

Do you conceive of the expansion just limited to those atoms on / near the earth or would it also involve the entire solar system? galaxy? the Universe?

Reply by Morton

I would readily agree that the expansion proposed by this author in order to account for the geologic data presents a severe problem when one considers the effects on living organisms. However, I do not believe that the problem is quite of the nature suggested by Nash. I envision that the alteration in the size of atomic radii occurred over many, many generations so that the effects were never evidenced within a single individual. During an individual life span the atomic size would not change significantly. Over many generations the effect would become noticeable. Each succeeding generation would have lived in a slightly different environment from that of his parents. Thus overthrusting or the splitting of an individual would not occur. Any slight structural damage occurring during an individual's lifetime would probably be corrected by the organism's ability to heal itself.

In order to be logically consistent, I would have to say that all animals were indeed smaller than modern representatives, since they lived during a time that the electric force was changing over the entire universe. However, we might not notice too much difference between the size of the fossil specimens and modern representatives because even after they died, their bones would expand making the fossils appear larger than they were in life.

What is the most difficult dilemma posed by this hypothesis when it is applied to life? I believe it is in the question of whether the enzymatic systems would still work after such change. The shape of a given molecule is determined by the interaction of the individual electrical charges of each atom in the molecule. If the electrical forces change, as I suggest, then the shapes of the molecules would also change. If they changed by too much, then biological activity would not be possible.

On the other hand, consider what might be the case if the molecular shapes were altered only slightly. It is entirely possible (albeit mere speculation) that the molecules in an enzymatic system might actually end up being more efficient than the systems we are blessed (or cursed) with today. If the system were more efficient, it could account for the apparently greater viability of the pre-diluvial beings. I would suggest that this could be an alternative explanation to how the patriarchs lived so long.

Another effect of only a slight alteration in the molecules making up life is that the morphology of the individual organism would be different from that of the same organism growing under today's environment. Thus a human under the older environment would not look quite the same as humans today. Much of the morphological change seen in the fossil record would not be due to genetic change but due to environmental change. We have only these two mechanisms by which to explain why all the fossils found in the fossil record are different morphologically from those seen today. Genetic change would seem to take longer than most creationists want to allow. That leaves only environmental change as a possible agent of morphological change.

My theory is designed to account for the geological difficulties that I have encountered in 14 years in the oil industry. I will let others deal with the problems it may produce in the living world if it appears to solve problems in orogeny and to stand the test of time and experimentation.

MOUNTAINS—A TIDAL (ASTRONOMICAL FLYBY) PHENOMENON

DONALD W. PATTEN*

Received 15 November 1986; Revised 18 May 1987

Abstract

The Earth and four other planets (Mars, Jupiter, Saturn and Uranus) give evidence of having been hit by fragments of bodies and/or capturing fragments in ring systems such as the icy rings of Saturn. In the case of Mars, 91 percent of its craters, including all of the largest, are on one side of the planet. This suggests that (a) 82 percent of its craters occurred on one day, and (b) those fragments which missed Mars became the asteroids. But, paying attention to the perihelions of the 15 largest asteroids, whose average is 239,000,000 miles from the Sun, the implication is that the fragmentation occurred when Mars was in another orbit. The flybys of Mars caused mountain uplifts on the earth.

*Donald W. Patten, M.A., is a creationist author, businessman and lecturer. He is the author of *The Biblical Flood and the Ice Epoch* (1966) and *The Long Day of Joshua and Six Other Catastrophes* (1973). Material herein will appear in a forthcoming work entitled *The Mars-Earth Wars* in an expanded form. He receives mail at 13540 Lake City Way, N.E., Seattle, WA 98125.

Close Flybys Occurred between Earth and Mars

Based on further analysis, the orbits of Mars and the Earth are, and presumably were, coplanar. Observing such issues as angular momentum, kinetic energy and orbit resonances, I am led to conclude Mars' former orbit had an aphelion of 218,000,000 miles and a perihelion of 75,000,000 miles, well inside Earth's orbit. And being coplanar, the two planets could, and I propose did, make close flybys periodically and cyclically. The closest and most intense was about 2500 B.C. during the lifetime of Noah. On this occasion, I believe Mars passed within about 15,000 miles (core to core) of the Earth, just brushing Roche's Limit of the Earth within about 4,000 miles.

Tidal forces, including crustal tides, as it turns out, vary with the mass and for distance with the inverse of the cube, not the inverse of the square. Thus I can calculate crustal tides for various Martian flybys as follows:

a. At 240,000 miles 3.3 feet (10 X the Moon)
b. At 120,000 miles 26.4 feet
c. At 60,000 miles 211 feet
d. At 30,000 miles 1,690 feet
e. At 15,000 miles 13,500 feet
f. At 10,500 miles Approaches infinity: Roche's Limit

During the closest flyby of circa 2500 B.C., on Earth there is evidence of a watery catastrophe. In Mars geography, there are 30 or 40 river systems, with tributaries, lake beds and distributaries, all bone dry. On a planet with 1/3 the gravitational strength of the Earth at surface level, one would suppose such rivers would meander: in fact they gushed and rushed torrentially as judged by the river bed geography. Since Mars cannot retain water vapor in its atmosphere, it is judged that these rivers on Mars were a once and only once forever phenomenon. Mars too has had a flood, and of an astronomical origin. The ice chunks hit Mars, their energies were converted into heat upon impact, and the rivers flowed suddenly, rapidly, and without later replenishment.

Evidences of Mars-Earth Flybys

If Mars made a close flyby of the Earth, as close as 15,000 to 20,000 miles, the following phenomena would occur, and I propose did occur:

1. A gyroscopic precession of the Earth's spin axis.
2. Earth's crust precessing independently of the mantle, and approximately 90° to the mantle.
3. Earth's outer core precession independently of, and approximately 90° to the mantle.
4. A polar relocation, of the magnitude of 3000 miles.
5. A new spin axis tilt.
6. Electron-stripping between the crust and the mantle.
7. A recharging of the Earth's geomagnetic field. (I can establish that tides, not interior convection currents, are the cause for the planetary magnetic fields of all planets.)
8. A polarity reversal of the Earth's geomagnetic field.
9. Crustal tides of 13,500 feet with Mars at 15,000 miles.
10. Crustal tides exhibiting a "flyby" or great circle pattern.
11. Crustal tides exhibiting belts, wide in the middle and narrow and lower at the two extremities, both the length extremities and the width extremities.
12. Crustal extreme distress, or diastrophism, for a period of six or seven hours, prime flyby time (not millions of mythical, Lyellian years).

It is to be noted in passing that there would be substantial oceanic tides simultaneously. Furthermore it is to be noted that the greatest of the mountain cycles is the Alpine-Himalayan cycle, which cycle contains Mt. Ararat where the Noachian vessel is reported to have become stranded, not unlike a piece of driftwood at or near high tide. And furthermore still, it is to be noted that the location of the grounded ark, in a mountainous region, is remote from all oceans, in a continental heartland location.

This study shall concentrate on the orogenetic concerns of diastrophism, uplifting, compression, trenches, tension, shearing, etc. All of these features must be considered in a matrix, and a good explanation must allow for more than just one or two kinds of crustal deformation.

Scriptural Evidence for Crustal Deformation

In Genesis, it is to be noted that, at the onset of the Flood, the "fountains of the great deep (were) broken up." This suggests a tidal phenomenon, which is an astronomical event, as does the Talmud, which says that two stars approached the Earth at the same time.

In Job is recorded the following bearing on crustal deformation and God's great power:

> Which removeth the mountains, and they know not:
> which overturneth them in his anger.
> Which shaketh the earth out of her place,
> and the pillars thereof tremble.
> Which commandeth the Sun, and it riseth not;
> and sealeth up the stars.
> Which alone spreadeth out the heavens,
> and treadeth upon the waves of the sea.
> Which maketh Arcturus, Orion, and Pleiades,
> and the chambers of the south.
> Which doeth great things past finding out;
> yea, and wonders without number. Job 9:5-10

As a catastrophist, an earth historian, and a creation scientist, along with the other four on this panel, I address myself to this issue of understanding "great things past finding out" in the context of crustal, and astronomal distress.

Within this brief but pregnant section of Scripture we find the following themes:

a. Crustal deformation	(which removeth mountains)
b. Oceanic distress	(treading on the sea waves)
c. Spin axis precession I	(the pillars thereof tremble)
d. Orbital perturbation	(shaketh the earth out of her place)
e. Spin axis precession II	(irregularity of sun and stars)
f. A significant Arcturus	(not a constellation)
g. A significant Orion	(again not a constellation)
h. A significant Pleiades	(again not a constellation)

It so happens that, in Hebrew, "Arcturus" is Ayish (usually preceded by the adjective "Ma"), "Orion" is Khecil, and Pleiades is Khima. Ma-Ayish is Mars, phonetically related to the Greek Ares, and the Hebrew month "Marchesvan" is from Ma-Ayish. Khecil is

Jupiter, and the Hebrew month Chisieu is from Khecil. Khima happens to be Saturn. We also note that God in his "anger" or "power" not only removes mountains, but also overturns them. If this is literal or semi-literal, as I suspect, the Bible is giving us a good clue about mountain uplifting or upthrusting, plus tension, shearing, compression, and other orogenic concerns.

The Bible views and presents God as the author of events in the heavens as well as the author of events on the Earth. The heavens include the astronomical heavens, as well as the spiritual heavenly places.

Since there were approximately 170 geomagnetic polarity reversals, this is a clue as to the duration of the Mars-Earth wars. If it can be demonstrated, from the Bible, that these ancient flyby events were in 54-year cycles, we have about 9200 years of potential crustal distress, with Mars close at hand somewhere between 15,000 and 150,000 miles, on each of those 170 occasions. Our concern is that occasion when it was 15,000 miles distant, the closest occasion, and the one which brought the most diastrophism and sedimentary strata to our planet as it now exists.

One Flyby was Closer than all Others and caused Mountain Uplift

It appears that God, in his power, wisdom and unfathomable planning, caused Mars to come within 15,000 miles of the Earth on one occasion, circa 2500 B.C. and within 17,000 miles on another occasion. The results were the Alpine-Himalayan cycle of orogeny on the closer occasion, and the southern part of the Circum-Pacific cycle of orogeny on the other, possibly 5,000 to 6,000 B.C. The closer flyby includes the Himalayan group, the Pamir Knot, the Armenian Knot and the Alps; the second closest flyby includes the Peruvian Andes, the Chilean Andes, and Bolivian Knot and certain ranges in Antarctica and Central America—see Patten (1966).

Tides on spherical bodies are governed by the inverse of the cube for distance, not the more common inverse of the square. Such crustal tides occurred in great circle patterns, causing upthrust, bending and breaking of the Earths crust in ranges, in arcuate ranges in the majority of cases. The source of power was the most common one in the solar system, or in the universe, simple gravity. It was the gravity of Mars, which is approximately 1/10th as massive as the Earth, pulling in a flyby (great circle) pattern, for a time duration of approximately 400 minutes.

Flybys Caused Spin Axis Shifting

Because the Earth is a gyroscope, as is Mars and most planets, it behaved like a gyroscope. A torque was put on the Earth and the Earth's spin axis precessed. However, it was not as a simple gyroscope, a top or a flywheel, welded into one unit. It was a four tiered gyroscope, with the crust precessing in 90° angular direction to the mantle, the mantle precessing on the outer core, and that precessing on the inner core. We see in the Scriptures similar spin axis precessions in the Long Day of Joshua, and in the Long Night of Sennacherib in Isaiah 37-38. On both of these later, and less intense occasions, the Earth's spin axis shifted somewhat in location, and in tilt, and in directions which can be deduced. I personally believe that before these two later catastrophes, Palestine had a latitude of about 42° N., and a shift of about five to six degrees to the south occurred on each of these later spin axis events. If so, before 1500 B.C., Palestine would have been the land of grass and flowers (like Western Oregon), of cows and bees, and of milk and honey. This phrase in the Scripture, in the light of spin axis precessions, is to be considered literally, or semi-literally in my view.

If one can demonstrate a spin axis precession on these later catastrophes, surely a more intense one occurred on the occasion of the closest flyby. One aspect of a spin axis precession is a polar relocation, and hence an equatorial shift on our planet. Is there a way to deduce where earlier polar locations were? I believe so, and details in my forthcoming work will indicate before the Flood, in the region of the Azores for the North Pole of the spin axis, and in mid Africa, perhaps Nigeria, in the era before the Antarctic-Andes cycle of uplifting. If I am correct, the North Pole, and the Equatorial Zone, shifted about 3000 miles during the Flood Catastrophe. Alaska formerly had a latitude comparable to Oklahoma . . . or the La Brea Tarpits of California.

Aftereffects of a Flyby Caused Mid-Atlantic Rift

This same flyby caused a new equatorial zone some 4500 years ago. Since the Earth's diameter is about 26 or 27 miles greater on its equatorial diameter versus its polar diameter, some significant, long-term isostasy must have ensued. The Arctic Region, including the nearby Finno-Scandinavian Shield dropped as did the bedrock of Antarctica while the equatorial zone in its new location, expanded, perhaps a half-dozen vertical miles. Of course in the aftermath there would be numerous earthquakes, declining exponentially as the new bulge zone was achieved. And there might even be a couple of splits . . . rifts . . . in the Earth's crust, particularly if they would occur perpendicularly to the equator, allowing some expansion. The African Rift Valley and the Mid-Atlantic Rift Zone are to be noted.

When I proposed (Patten, 1966) that an icysatellite of the intruding planet now identified as Mars, fragmented on Roche's Limit, circa 11,000 miles from the Earth's core, that concept was considered obscure by certain creationists. That it was considered obscure was not because it was in fact obscure, but because these creationists misunderstood astronomical evidence including Roche's well established principle. This fragmentation, I believe to have been the genesis of (1) the Earth's ice age, (2) the sudden atmospheric rain, a hot rain if we are to believe Judaica, (3) the now dry river beds on Mars. Both Mars and the Earth were sprayed with ice, and even the Moon received a trace.

Other Scriptures Speak of Crustal Deformation

In Psalm 114 it is said that the sea fled or was driven back, the Earth trembled, and the mountains skipped like rams and lambs. Psalm 114 refers to the Exodus scene, at which time it must be noted, Moses reorganized the Hebrew calendar for some reason, likely an astronomical reason. Although the flyby was on the sunward side, and it was during the night time for the Middle East, nevertheless there are numerous indications of great crustal upheavals. One is that the Mount

of Lawgiving was a new volcano. Another is the genesis of the term "passover". Yet another is the Mosaic reorganization of the civil calendar. Marcheswan was shifted from the second to the eighth month, while in ancient Italy March continued to be both the first month, and Mars' month.

During the Exodus catastrophe, it is really very simple concerning orogeny. If the Mars flyby was 30,000 miles, the crustal tide was 1500 or 1600 feet. If the Mars flyby was 40,000 miles, the crustal tide was about 900 feet, and if the flyby was 50,000 miles, the crustal tide was about 400 feet. Those who might suggest that this is poetry or mythology just happen to not understand the times or the power of God.

Another flyby occasion was the year 756 B. C., in October, or Marcheswan. Amos foresaw it and prophesied the falling of celestial fire, possibly interplanetary lightning. Joel described it in terms of fire and brimstone. Zechariah looked back 200 years to it and described the heaving of the crust in the locale of Jerusalem; this is also described in Josephus, where landslides of greater than 100 yards are mentioned. Jonah announced to Nineveh that God's celestial wrath was about to fall on that wicked city. That it did not was a great disappointment to Jonah. But, had Jonah been able to foresee the cosmic discharge on Sennacherib's well-armored army, just 54 years later, and the accompanying blow to Assyrian power in that time, his soul would have been satisfied.

Later in the Book of Job we find the following:

> He stretcheth out the north over the empty space, and hangeth the Earth upon nothing . . .
> The pillars of heaven tremble and are astonished at his reproof.
> He divideth the sea with his POWER, . . .
> By his spirit he hath garnished the heavens;
> his hand hath formed the crooked serpent
> but the thunder of his power who can understand.
> Job 36:7-14, portions.

Such, like the earlier speech, was Job's. And note, Bildad, Eliphaz, Zophar and Elihu did not dispute with Job on astronomy or earth history issues: other kinds of issues concerned them. Thus tacit agreement is inferred. But in Chapter 38, it is God's speech, and it is a revelation of Creation far broader and more majestic than any that was recorded by Moses.

Saturn and Jupiter were also in Orbital Resonance

For reasons not presented here, I believe that Saturn, Jupiter and Mars were in orbital resonance with the Earth at that time. Those orbital resonances happened to have been 30:1, 12:1 and 2:1 respectively. In Job 38, God in his speech draws attention to Mars, Jupiter and Saturn. Translators have misunderstood and assigned these as constellations such as Arcturus, Pleiades and Orion but these later translators lived in later uniformitarian times and had no picture of what was happening. I believe that Mazzaroth, the icy comet and Arcturus are one and the same. After the ice dump and riverine outflow on Mars, the resultant lakes evaporated, giving Mars an ancient, hoary comet-like tail. Mazzaroth is the bearded star; Arcturus is Ma Ayish.

Gods challenge to Job in Chapter 38, among other things, is to possibly understand the comings and goings of "Arcturus" with his sons. The ancient Greeks claimed they saw Ares with two sons, who had names, Deimos (panic) and Phobos (fear). Were the Greeks describing the same scene in their way, that God herein is describing to Job? Notice it is (a) the guidance and (b) the timing of the approaches of Arcturus/Mazzaroth which God refers to in his questions. Note, those questions are followed by such a question as "Knowest thou the ordinances of heaven? Canst thou set the dominion thereof in the Earth?" And later, verse 38, He asks such a question as who can stop or retard the planets in their heavenly progressions.

Flybys also Explain Geomagnetic Reversals

I believe that, today, not only is the geomagnetic field decaying, but it was recharged by the Flood flyby. I believe that on this, and about 169 other flyby occasions, the geomagnetic field was reversed. I believe that today, 99 percent of the Earth's geomagnetic field strength is due to the ancient Mars-Earth wars, and only one percent (ongoing and not decaying) is caused by the Moon and Sun combination. I believe further that tides are the causes of the magnetic field of Mercury (.003 gauss), Jupiter (4.2 gauss), Saturn (.2 gauss), Uranus (circa .9 gauss) and Neptune will be found to have a remarkable strong magnetic field of 2.0 to 2.5 gauss. This will be due to the massive size and close proximity of Triton.

I likewise believe that an equation can be developed illustrating and identifying the factors which cause the magnetic field of any planet. I suspect that such an equation will be a large stride toward arriving at the mysterious unified field theory.

All of this does relate to the Mars-Earth wars in general if those wars induced 99 percent of the Earth's current, albeit a declining or decaying current. And the greatest occasion of induction, or recharging, was the Noachian Flood flyby, at which time the Earth must have had a field strength of 2.5 gauss ± 10 percent.

In God's speech in Job 38, a majestic revelation indeed, He directs attention to the Ma Ayish . . . the heavenly body which I am convinced is Mars. It is the phonetic equivalent of the Egyptian Horus and the Greek Ares. This is the celestial planet that the Romans considered the champion of celestial warfare, and which they feared and worshiped to excess. They named their first month after this planet-deity, and associated two steeds or sons (Deimos and Phobos) with him, as did the Greeks.

Seven Otherwise Puzzling Phenomena Fit with the Mars Flyby Model

(1) Mars has a rotation rate of 24 hours 37 minutes. The Earths is 24 hours, or 23 hours 56 minutes depending on how one calculates. The uniformitarian's question is, "My, is not that an interesting coincidence?" The catastrophist's question should be, "Did the Earth's crust, apart from its underlying mantle, in some way "lock on" to Mars during the close flyby occasions for a brief two to four hours?"

(2) Mars has an axial tilt of 23.98° compared to the Earth's tilt of 23.44°. The uniformitarian's question is, "My, is not that another astounding and interesting coincidence?" The catastrophist's question should be, "In flyby interaction, including tidal stress and spin

axis torsion, did these two planets somehow or in some way work on each other reciprocally?"

(3) Judging by the laminated plates formed by carbon dioxide ice in the polar regions of Mars, Mars seems to have had 25 or 30 different polar locations. The uniformitarian's question is, "My, is not that amazing?" The catastrophist's question may be, "How many close flybys were there, close enough to cause a spin axis torque on Mars, among the series of 170 or so?"

(4) Judging by the crater count on the hemisphere centered on 45° S. latitude and 320° W. longitude, Mars has 91 percent of its craters in one heavily-blasted hemisphere, and its opposite hemisphere is serene compared to the surface of Mercury or the Moon. The uniformitarian's question is, "My, how many craters Mars must have acquired over the last 4.5 billions of years." The catastrophist's question may be, "Were not those fragments which missed Mars the genesis of the asteroids rather than some nebular cosmology some four billions of years ago? And how recent was it in terms of thousands, not billions of years?"

(5) Judging by the sizes of the craters on Mars, they happen to be commensurate with the sizes of the asteroids, when an adjustment is made for the size of the craters being somewhat larger than the projectile causing them. The uniformitarian's question about this has yet to be recorded; the significance therein has yet to be perceived. The catastrophist's question is, "Since the largest asteroids have an average perihelion of 239,000,000 miles, does not this fragmentative, genesis event indicate or suggest Mars formerly had a different orbit, part of which was in the 200,000,000 to 215,000,000 mile zone from the Sun?"

(6) Judging by the gushing, rushing nature of the dry river beds on Mars, and the modest mass of Mars, it is apparent that Mars once had oceans, if not atmospheres. The uniformitarian's question is, "My, these rivers must have been formed by subsurface ice which melted 3,000,000,000 years ago or more." They tend to be oblivious to the obvious, that the Martian crust is very dry as it is very cold by Earthian standards. The catastrophist's question is, "Does this indicate three icy fragmentations in the history of the solar system (for Saturn, Mars and Earth), or just two, one for Saturn and another icy spray spraying both Mars and Earth during a close flyby?"

Judging by the hundreds of pitlets or craterlets on tiny Deimos and on tiny Phobos, there is no recorded uniformitarian question as of this date. But there is another related question, pertaining to the existence of Deimos and Phobos. The traditional uniformitarian question is, "My, how could little Mars, 1/3000th the mass of Jupiter, capture TWO, not just one tiny asteroid on the fly when Jupiter, so massive, has captured only a dozen or two?" The catastrophist's question can be, "When this smaller, Pluto-sized, sub-Moon-sized planet fragmented, and splatted on one side of Mars, and created the asteroids orbiting around the Sun, did a small percentage stick around Mars, and orbit around Mars in an ancient ring?"

The next question for the catastrophists should have to do with such aberrant asteroids as Apollo (1862), Amor (1221), Eros (433) and Icarus (1566). The uniformitarian's question is "My, has not Jupiter had some weird effects on certain asteroids?" The catastrophist's question can be, (1) "Are these asteroids former brothers of Deimos and Phobos?" (2) "Were Icarus and Apollo separated from the ancient Martian rings during a March flyby?" (3) "Were Eros and Amor separated from the ancient Martian rings during a close October flyby?" (4) "Was Deimos almost ripped off also?" (5) "Are Deimos and Phobos survivors from an ancient ring, as evidenced by their craterlets, or are they chance grabs of asteroids on the fly by Mars? (6) Judging by the chaotic terrain of the Valles Marineris in Mars' equatorial zone, and by the sizes of the craters Hellas, Isidis and Argyre, to name but three, the uniformitarian's question is, "My, what remarkable graben features formed some three billion years ago, somewhat like certain fault basins, blocks fault troughs on the Earth?" The catastrophist's question should be (1) "Does this suggest that Mars absorbed the Hellas Fragment, the Argyre Fragment, the Isidis Fragment, the Darwin Fragment, the Kepler Fragment, the Pickering Fragment, etc. and increase its mass about three percent?" (2) "Did this accretion or infusion of mass increase the Martian diameter about 20 miles?" (3) "Did the rifting and graben-like terrain, wild and forbidding, come as an aftermath of its ingestion of these thousands of fragments?" (4) "Did Mars have indigestion, and have to relieve itself in the form of (a) volcanism with many examples, (b) bulges such as the Tharsis and Elysian bulges, and (c) rifting such as the Valles Marineris?" (5) "Is there evidence that this astronomical catastrophe just preceded the onset of the Mars-Earth wars?"

A Flyby Model of Orogeny Explains All These Criteria

To understand the mountain uplift ranges, and patterns, and locations, and arcuate character in many cases, and the many kinds of faulting, upthrusting, shearing and compressing, a credible mechanism must address all of these and the following:

1. The hazardous nature of the ancient Earth orbit. It was far from a serene situation, which all Lyellians mistakenly assume.
2. The great circle pattern of part of the Circum-Pacific zone of uplifting possibly circa 6000 B.C.
3. The great circle pattern of the Alpine-Himalayan cycle of deformation, circa 4500 years ago.
4. The great circle pattern of the Appalachian-Herzian-Caledonian cycle of deformation possibly circa 8500 B.C.
5. The source of the power, which we adjudge to be the gravity of Mars.
6. The related and, I believe, coinciding condition of a reversal of polarity of the geomagnetic field.
7. The related and coinciding condition of a recharging of the geomagnetic field.
8. The related and, I believe, coinciding effect of massive tides and tidal waves in the oceanic reservoirs, rinsing the continents on the worst of the flybys.
9. Concomitantly a credible mechanism and timing for the glacial age.
10. The integrating of gyroscopic torsion and spin axis precession during flyby scenarios wherein mountain ranges were uplifted.

11. The concern of the ancient Romans of Mars and the ancient Greeks of Ares, also Apollo which is a Hellenized form of the Phoenician Baal.
12. Harmonize these complex and highly inter-related events with Biblical source material such as Job 9:5-10, Job 38:30-37, Psalms 114.
13. Harmonize these also with comparable and parallel texts in Judaica and especially Josephus.
14. The latent cyclicism which I believe can be detected by careful study of the Biblically recorded catastrophes.
15. The arcuate pattern of so many of the mountain ranges.

Conclusion

My insight is that the major, and most of the lesser mountain ranges of the Earth were uplifted by gravity (by a gravity about 10 percent as massive as Earth's.) It required about 22,000 seconds, not 220,000,000 years for an entire cycle of mountain systems to be uplifted. Geomagnetic and gyroscopic issues must be considered in concord and not in isolation to mountain uplifts, and diastrophism. My further insight is that academicians of the early 19th century, led by Lyell, dismissed catastrophism for religious reasons based on Masonic (gnostic) doctrine, a holdover from the French Revolution, as well as emotion, guilt and moral compromise, and not on objective reasons based on geological or ancient historical data. I judge that not only is the history of the Earth one of recent catastrophism, but so is that of Mars, and their twin spin axis tilts and rotation rates should serve as an ample hint.

References

Patten, D. W. 1966. The Biblical Flood and the ice epoch. Pacific Meridian Publishing Company. Seattle.

_____ 1970. Filmstrip: Cataclysm from space 2800 B.C. American Media. Westlake, CA.

_____ 1973. The long day of Joshua and six other catastrophes. Pacific Meridian Publishing Company. Seattle.

_____ 1984. The scars of Mars, part I. *Catastrophism and Ancient History*. VI(2):75-92.

_____ 1985. The scars of Mars, part II. *Catastrophism and Ancient History* VII(1):5-23. These last two papers also appear in *Kronos* X(3) and XI(l).

Questions, Comments and Replies:

Question from Waisgerber to Patten:

Why was it Mars and not some other planet that came close to Earth in this flyby? What scientific basis is there for Mars to leave its orbit so as to flyby Earth and then return to orbit? Where were the two moons for Mars during the flyby?

Reply by Patten:

Mr. Waisgerber assumes, and attributes to a needed explanation, why Mars left its ancient orbit, went into a conflicting orbit with the Earth, and then had to return. His use of the term "return" sounds a bit uniformitarian to me.

I believe or suspect the following. Sometime around 10,000 B.C., or 12,000 B.P., Mars had an orbit which included passing through space some 205,000,000 miles from the Sun. There, in a certain sector, it encountered a small rocky planet with a diameter of between 1300 and 1700 miles. I am taking the liberty of naming this planet Astra since I am the pioneer of this concept.

Astra fragmented, and created (1) well over 90 percent of the asteroids, fragments which missed Mars, (2) about 2700 craters on Mars, all of which exceed 20 miles in diameter plus thousands of lesser craters, (3) the bulges opposite to Hellas and Isidis and (4) ancient rocky ring system of which Deimos, Phobos, Amor, Icarus, Eros and Apollo were components.

During this encounter, Mars was hit, hard, especially by the core of Astra (Hellas). Mars was past aphelion, approaching perihelion I conclude. Mars was about 205,000,000 miles from the Sun. It lost a significant amount of energy in this shattering, blasting encounter. This lost energy took the form of a new orbit. I will refer to its pre-Astra orbit, which I think of as pre-12,000 B.P., as "Orbit 1." After the Astra encounter, Mars, losing energy, fell into "Orbit 2." Orbit 2 is described as follows:

a. Perihelion	75,000,000 miles
b. Aphelion	218,000,000 miles
c. Eccentricity	.48 to .50
d. Apsides	Perpendicular to Jupiter's Apsides
e. Apsides	Parallel to Earth's Ancient Apsides
f. Apsides	2° or 3° from Earth's Current Apsides
g. Resonance	1:2 with Earth's Ancient Orbit
	6:l with Jupiter's Orbit
	15:l with Saturn's Orbit
	1:24 with Moon's Ancient Orbit

In Orbit 2, I believe that Mars threatened to assault the Earth during the era 9900 B.C. to 701 B.C. I believe that it had a close flyby (within 90,000 miles) once every 54 years, alternating from March to October and back to March and so forth. The Noachian Flood was an October event, as was the Davidic Holocaust of 972 B.C., the Long Day of Joshua of 1404 B.C., and the Amos-Joel-Jonah Catastrophe of 756 B.C.

In the month of March 701 B.C., Mars made an abnormal outside (note - night side) flyby, and simultaneously it was an abnormally close flyby, with reversed perturbations. The resonance system broke down on this occasion, and Mars moved into its current orbit, as its apsides rotated, between 701 B.C. and 670 B.C.

In this last encounter of 701 B.C., Mars again lost some more energy, and moved down about 4.5 to 5 percent in its orbital period, from an ancient 720 to its current 687 days. Simultaneously the Earth gained energy, and moved from an ancient 360 day orbit to the current 365.26 day orbit. This is reflected in dozens of ways in ancient Earth calendars and other observations.

There are two examples of what happens when a body goes out of resonance in our solar system. One is with asteroids and the Kirkwood Gaps. The other is with ice particles circling Saturn, and the Cassini Gap. In both cases, when particles or asteroids went out of resonance and lost energy, they piled up about 4.5 to 5 percent down from their previous orbit. Note that the Martian orbit is 95.4 percent of what I believe to be its ancient orbit in terms of orbital period.

The Earth's day count per year, in, 701 B.C., expanded from the previous 360 or 360.5 to the new 365.26, partly due to spin axis spin rate increase, but mostly due to an expansion of the Earth's orbit from an ancient 92,300,000 miles to the current 93,000,000 miles. Understanding resonances and familiarity with Kep-