

desperate expedient invented by frightened men. Anxiously eyeing the dark clouds of Darwinism on the theological horizon, and hearing the roar of an approaching storm, they decided to jettison the Bible dates in hope of saving the ship of Christianity. Vain hope! The storm swept over them and swallowed up the dates, but that was just the beginning. Next the Pentateuch, then the whole Old Testament, then the Gospels, came under attack. What was left of Christianity after the self-styled "experts" had finished battering the Bible, bears no resemblance to the Faith of our Fathers.

Looking back over one hundred twenty years we can see, I think, that the strategy of men like B. B. Warfield and W. H. Green of Princeton was mistaken, though well-meaning. Their great reputation carried the day . . . but in this matter the reputation of One greater than Warfield or Green is at stake: that is, the reputation of God Himself. God is the greatest Communicator of all time. He had at His disposal all languages, all verbs and all shades of meaning, when He caused these genealogies to be written. Moreover He foreknew, we must believe, that these chapters would be translated into a thousand tongues and distributed by the million in every corner of the globe. Are we to suppose that He was so idle or so incompetent as to leave one hundred generations of His people groping in darkness, fondly imagining that the date of Creation could be computed by simple addition, when in fact the ages of the patriarchs have *nothing to do with dating*, as Warfield and Green affirm? Would any human father so carelessly allow his children to be misled? On the contrary, we agree with Dr. H. C. Leupold's comment:

"There is no reason for doubting the correctness of the chronology submitted by the Hebrew Massoretic text . . . No other nation has anything to com-

pare with it . . . The claim that the Scriptures do not give a complete and accurate chronology for the whole period of the Old Testament that they cover, is utterly wrong, dangerous, and mischievous."¹³

The ones who have been misled, I suggest, are the archaeologists who followed Darwin down the garden path and (like the biologists) have "engendered fragile towers of hypothesis based upon hypotheses, where fact and fiction mingle in an inextricable confusion"¹⁴

It was of such people that David wrote: "He who sitteth in the heavens shall laugh: the Lord shall have them in derision".

And among all the saints in glory, none, I think, will enjoy the merriment more . . . than Archbishop James Ussher!

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²*Ibid.*
³*Ibid.*, pp. 158 & 159.
⁴*Ibid.*, p. 163.
⁵*The life and works of Josephus*. Translated by William Whiston. Distributed by Zondervan. P. 38.
⁶*Ibid.*
⁷*Ibid.*, p. 39.
⁸Brecher, Kenneth, 1979. *The astronomy of the ancients*. MIT Press, Cambridge. See especially p. 114.
⁹Watson, David C. C., 1976. *The great brain robbery*. Moody. See especially Appendix D.
¹⁰Daniel, Glyn, 1967. *The origin and growth of archaeology*. P. 101.
¹¹Forde-Johnston, J., 1974. *History of the Earth*. P. 48.
¹²MacBeth, Norman, 1971. *Darwin retried*. Gambit.
¹³Leupold, H. C., 1972. *Exposition of Genesis*. Baker Books. Pp 237 & 238.
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SATELLITE OBSERVATIONS CONFIRM THE DECLINE OF THE EARTH'S MAGNETIC FIELD

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Measurements by the NASA's Magsat satellite, between October 1979 and June 1980, corroborate the conclusion which had already been reached: that the Earth's magnetic field is decreasing—not oscillating, but decreasing monotonically and exponentially. In this article the evidence for a young Earth which such a decay provides is considered; also the question, what will happen if the present decay continues.

Decay Evidence

New evidence of the decline in the earth's magnetic field has been provided by NASA's Magsat satellite which orbited the earth from October 1979 to June 1980. Dr. Robert Langel, chief project scientist, stated that if the present rate of decline continues the earth's magnetic poles will reverse in about 1,200 years.¹ A decline in the earth's magnetic field had been noted in

other spacecraft observations for several years prior to this. However, Langel's news release is in reference to the findings from Magsat, which is the first American spacecraft expressly designed to study earth's magnetic properties.

There is nothing new about the fact that the earth's main magnetic field, its *dipole* field, is decreasing at a rapid rate. Sidney Chapman reported in 1951 that the earth's magnetic field is decreasing at a rate that is "unparalleled" by any other geophysical phenomenon. He described its rate of decay as a *few per cent per cen-*

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ture². Dr. Edward R. Benton, a University of Colorado geophysicist on the Magsat project, states that its rate of decline in magnetic intensity is *a fraction of 1 per cent per decade*, which is of the same order of magnitude as Chapman's observed rate of decline.

No actual data were given in the news release nor any of the other details which would be needed to make an assessment of the error factors involved, but the Magsat project is an important one. This first glimpse of its findings is sufficient to alert the scientific community to the fact that one can no longer ignore the rapid decay of the earth's magnetic field. It is definitely taking place.

The consequences of the rapid decay of the earth's magnetic field are astounding. This decay is inexorably heading the world toward a lethal environment of cosmic ray bombardment. Cosmic rays are very high speed positively charged nuclei coming in from outer space, from all directions and with high enough energies to transmute elements. The earth's magnetic field extends far out beyond the earth and provides a magnetic shield against most of those cosmic particles so that they miss the surface of the earth. However the weaker the magnetic field becomes the less it can accomplish this protective mission. If one takes the Langel projection, the earth's magnetic shield will vanish completely in the year 3180 A.D. If one takes the projection in a 1967 ESSA technical report³ the vanishing date for the earth's magnetic field is 3991 A.D.

A second consequence of the decaying magnetic field is the need to introduce a correction factor into carbon 14 dating, telescoping the dates down to younger ages. The stronger magnetic field in the past means that there was less penetration of cosmic rays then and a related smaller rate of production of carbon 14. Clearly that would yield a smaller residual amount of carbon 14 in a sample than would be expected by Libby's theory which assumes a constant rate of production of carbon 14. This means that a host of the previous carbon 14 dated samples have incorrectly been assigned long age dates. The prior stronger magnetic field must be taken into account. When it is corrected the ages will contract down to an age range that provides additional support for the creationist position.

Rejection of the Reversal Hypothesis

There is nothing in the Magsat findings to justify the claim that the earth's magnetic field will reverse its polarity. The evidence simply shows that the field strength is decaying. Langel's 1,200 year projected time at which the magnetic field will reverse polarity is actually the time for the magnetic field to *vanish*. At that time there will be no magnetic energy, and no magnetic poles. A reversal requires new magnetic energy and associated poles. If there are to be magnetic poles some new magnetic energy must be generated. But no valid mechanism for accomplishing this "reversal" in the earth's magnetic field has yet been developed, not even theoretically.

The decaying magnetic field presents a formidable problem to conventional geochronology. That frustrating problem has spawned the *reversal hypothesis* for sustaining the earth's magnetic field for

billions of years. According to the Magsat news release version of that hypothesis the earth's magnetic field has reversed many times and "at intervals of 50,000 to 1 million years" with the last "well-documented reversal" occurring 700,000 years ago. However it is acknowledged in the news release that "no one really understands the mechanism of a magnetic reversal."

With evolutionary geochronology in that precarious position it is not surprising that some "poetic license" might be taken with the data presumed to support the reversal hypothesis. That appears to have been done with the data on magnetic anomalies on the sea floor in the following Magsat news release: "Records of past polarities imbedded in the sea floor, which provide conclusive proof that the sea floor is spreading out from mid-ocean rifts, show that the 700,000 years is a long time between reversals. The average might be closer to 300,000 years." This so-called *conclusive proof* is based on the plate tectonics theory of continental drift espoused by Vine and supposedly supported by his interpretation of magnetic anomalies on the sea floor. Vine's claims are ripped to shreds by two lengthy articles in American Petroleum Geologist Bulletin V. 56 No. 2, 1972 by A. A. and Howard Meyerhoff pages 264-336. The following quotes are from those articles:

"It is not true that the linear magnetic anomalies can be correlated from the North Atlantic via the Indian Ocean to the northeastern Pacific. The magnetic signatures of supposedly correlative anomalies are very similar in limited areas, but are very different among different areas. Moreover, *magnetic stripes need not be caused solely by alternate bands of 'normal' and 'reversed' polarization, differences in magnetic susceptibility values of adjacent rock types can produce the same.* Page 271 (emphasis added).

"We have demonstrated that many of the beliefs held by continental drift advocates are misconceptions, most of them inherited from assumptions built on assumptions which are not clearly labeled as such — ". Page 271.

"The so-called magnetic anomalies are not what they are purported to be—a 'taped record' of magnetic events during the creation of the new ocean floor between continents." page 337.

"Vine's suggestion is interesting, but is simply another of those speculations, based on multiple assumptions, that gradually evolved into 'hypothesis', and later were transformed into 'established theory' and finally into 'fact'." page 338-339.

Additional Flaws in Reversal Hypothesis

One problem with the reversal hypothesis is that its only support is from anomalous evidence. The previously mentioned magnetic "record" on the sea floor has not only been exaggerated, it is not basic evidence in the first place. There is no assurance that there is any relation between the anomalous magnetic reversals observed on the floor of the ocean and the state (strength and direction) of the earth's main magnet, past or present. The documentation of that flaw in the presumed "reversal evidence" can be found in previous papers by the author in the Creation Research Society Quarterly and

Table 1.

Date	Field Strength	Date	Field Strength
1812	0.94 ± 0.05	1900	0.89
1848	1.016	1900	1.00
1850	0.96 ± 0.02	1900	0.94
1855 ± 3	0.95	1914	0.94
1858	0.87 ± 0.08	1930	0.988
1884	0.97	1955	1.00
1885	0.997	1955	1.00
1890 ± 10	0.67		

1812 to 1960 excerpt from "Change in Geomagnetic Intensity in the last 8500 years, According to Global Archeomagnetic Data" by S. P. Burlatskaya, Institute of Terrestrial Physics, USSR Academy of Science, 1969, page 547.

in the SIS Review.^{4, 5, 6, 7}

There are numerous problems involved. One is the matter of self-reversals in rock. It is unrelated to the ambient field. Another problem is in a flawed method of collecting and analyzing the data. The *only* dependable evidence on the history of the earth's magnetic dipole field is the realtime magnetic dipole *moment* evaluation developed from the whole earth. Those evaluations are achieved from extensive measurements of absolute field strength over a global distribution, in the same time frame, with the time accurately known, and so reduced as to eliminate the anomalous "noise". That has never been done for any of the presumed reversals.

Fortunately there is dependable real-time data on the earth's magnetic moment and its associated field that does meet the aforementioned criteria. It extends from the time of Karl Gauss' original evaluation in 1835 up to the present time. It shows the continuous decline in the earth's magnetic field as would be expected from the Magsat findings. So the decay has been documented since 1835. It is informative to compare that with the paleomagnetic data available in the literature, the type of data which has been classified as anomalous in this paper, the type employed to support the reversal theory. Table 1 gives all the listed paleomagnetic data in the overlapping time frame 1812 to 1960 which was available in the Russian paper which was supposed to have been a compilation of the available paleomagnetic data for the last 8,500 years. This test is to see if there is any check during this period of time in which it is known that the earth's magnetic field has been decaying rapidly. As can be seen from the table there is not the slightest indication in this paleomagnetic data of the actual decay which is known to have taken place. This is illustrative of the unreliability of data upon which the presumed reversal theory is said to have been "conclusively proved". It would never have been accepted in science had there not been such a motivation to hold on to the evolutionary chronology.

Earth's Magnetic History and Future

As noted there is no theoretical justification for reversals of the earth's dipole magnet. Nor is there any valid observational evidence for reversals of the earth's dipole magnet, only anomalous paleomagnetic observations. In the language of a communications engineer these anomalies are "noise" in so far as the dipole magnet is concerned. They are important and should be studied as evidence of nonuniformities in the earth's crust. These nonuniformities may have significance in mineral exploration, however they are only distractive effects that must be reduced out of the data before the basic "signal", the state of the dipole magnet and its symmetrical field, can be evaluated.

All of the worldwide real-time data indicate that the earth's dipole magnet is continuously decaying from a prior stronger state. In a previous paper the author has shown, from the available record of evaluations of the earth's magnetic dipole moment, that its half-life is about 1400 years.⁸ Extrapolating that backwards 10,000 years or so, yields implausibly large magnetic fields. If that is correct then by implication the age of the earth is also limited to that range.

There is excellent *theoretical* justification for the decay which has been observed. The theory was first developed by Horace Lamb in 1883. It is based on a solution to Maxwell's equations, meaning that it is completely dependable. *It predicts the decay and shows that no dynamo has been needed since its origin.*

This decaying magnetic phenomenon is somewhat analogous to the earth's spin. No motor has been needed to keep the earth spinning since its origin. The spin rate is declining but at a very slow rate.

The earth's magnetic field is indeed a remarkable geophysical phenomenon. It had a relatively recent origin. It is decaying and will vanish in the not too distant future, leaving the earth unprotected from cosmic ray bombardment.

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