Last meeting (February 11th) our group reviewed and discussed articles found on the web arguing against the precepts of scientific creation. Most of the arguments centered on the age of the earth; specifically against a young earth. Mr. Tim Thompson has a list of 10 creationist’s evidences at http://www.tim-thompson.com/young-earth.html#3. He cites the creationist’s statement and follows with a short counter-response and a more detailed response. The 10 evidences are:

1) The earth’s spin rate
2) The earth’s magnetic field
3) The atmosphere has less than 40,000 years worth of helium
4) Lack of meteorites in sedimentary material
5) The rate at which meteoritic dust accumulating on the earth
6) The amount of dust on the moon
7) The “giant vacuum cleaner” effects of the sun
8) The rate of shrink of the sun
9) ”Boil off” of short period comets
10) Large quantity of energy radiation of Jupiter and Saturn

While some discussion took place on some of the 10 evidences, the discussions were primarily about Helium (#3) and atmospheric C-14 (not on the list but brought up for discussion). Regarding Helium Mr. Thompson cites that the original creationist calculation did not take into effect the escape of ionized Helium along the lines of the earth’s magnetic field. Mr. Thompson asserts that by taking that into consideration, “it now appears that helium is in equilibrium in the earth’s atmosphere” and thus not a problem for an old earth. Mr. Thompson gave two references to support the importance of ionized Helium escape. We were not successful in finding the actual
articles for a more detailed understanding. However, Mr. Thompson did give a summary quote from each to justify his position. Unfortunately, neither of the summary quotes gave actual measurements of Helium escape along the magnetic lines. The first stated that escape rates could be important but more accurate values of reaction rate coefficients of charge were required to see if it really was important. The second gave some parameters over which calculations and computations were performed. However, no mention is made to actual measurements. Our original motivation to searching the articles were to understand how the measurements were made. Now, we wonder if any measurements were made at all??

Regarding the C-14 in the atmosphere, Mr. Thompson relies heavily on the existence of an accurate tree-ring data system, which is absolute and that magnetic reversals have occurred on the earth. On the latter subject, he suggests that Henry Morris in 1974 purposely withheld information from his readers by not telling them that C-14 was influenced by the earth’s magnetic field. However, Morris in his book THE BIBLICAL BASIS FOR MODERN SCIENCE (1984; 8th printing) discusses this correlation at length and warns the reader about the complexity of the influence (p.454).

Mr. Thompson’s position is that since magnetism of lava flows proves the occurrence of earth’s magnetic reversals, the magnetic field has changed significantly in the past - not just some but by a lot. And since the magnetic field influences the generation of C-14, the assumption that C-14 production is steady is in error. He agrees that at present the C-14 production exceeds the radioactive decay but cannot be extrapolated back to a starting time.

His view that an absolute tree-ring system exists and that magnetic reversals are a fact appear too simplistic. He states “Tree-ring data give us a precise correction table for carbon-14 dates as far back as 8,000-9,000 years” (emphasize mine) - since when does the data taken from very old things (some dead!) ever work out that well? A casual search of the literature regarding these two subject yielded a wealth of controversy. For example, Harold Galdwin in his article “Dendrochronology, Radiocarbon and Bristlecones” referring to three separate locations of bristlecone pines growing in similar altitudes with similar rainfall profiles states that the “comparison charts of measured rings show no similarity whatever”. This hardly sounds like a “sure” system.

The same can be said of the magnetic reversals. After molten lava emerges from a volcano, it solidifies to a rock. The black rock known as basalt appears to be faintly magnetic. It is conveniently assumed by many (those desiring an old earth) that the direction of the dipole moment is determined only by the magnetic force of the earth at
the time when it cools down. Since lava flows with different magnetic polarizations have been discovered, it is readily assumed that the earth must have experienced multiple reversals. But again, a search of the literature reveals controversy regarding the cause and effect of the lava flow’s magnetism and the earth’s magnetic field - it is not clear-cut.

Henry Morris reminded us that this is a complex issue involving many factors, some of which provide very scanty data. Perhaps this is the reason that the Institute of Creation Research embarked on the RATE project. More analysis and measurement is needed to better understand the cause and effect. One does not want to defend his position on partial or inadequate data – his integrity is on the line.