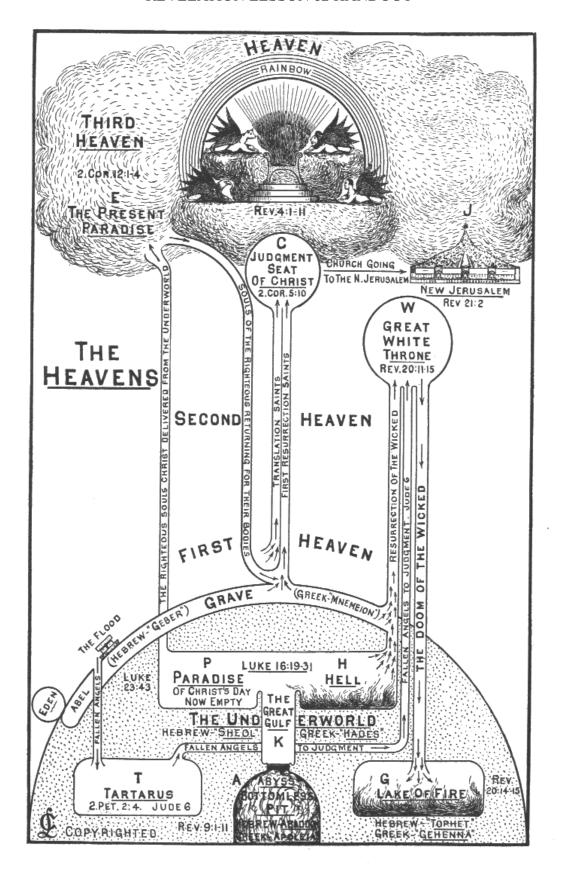
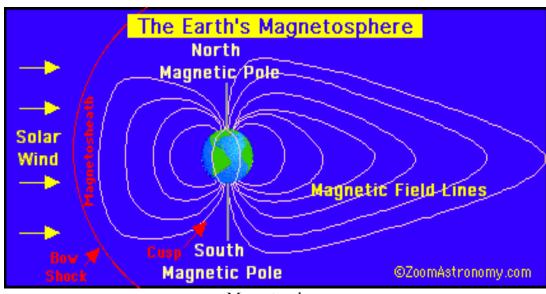
REVELATION LESSON 82 HANDOUT

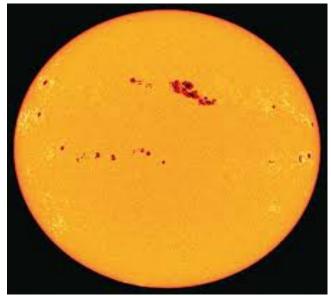


CLARENCE LARKIN DIAGRAM OF THE 3 HEAVENS

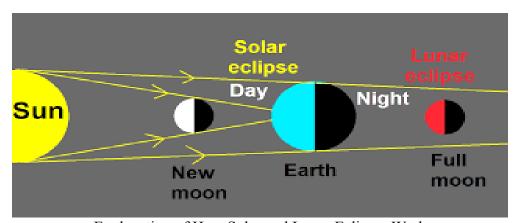
UPPER ATMOSPHERE The farthest layer 640 to 64,000 km (400 to 40,000 mi) above Earth's surface The air dwindles to nothing as molecules drift into space. **THERMOSPHERE** Where the temperature rises 80 to 640 km (50 to 400 mi) above Earth's surface Even though the air there is thin, it absorbs so much solar radiation that the temperature can reach up to 230° C (440° F). Within the thermosphere are the ionosphere and magnetosphere. The ionosphere contains electrically charged particles that can interfere with radio broadcasts. Charged particles in the magnetosphere are affected by Earth's magnetic field and under the right conditions, create the beautiful, shimmering Northern and Southern Lights. MIDDLE ATMOSPHERE **MESOSPHERE** Where shooting stars blaze 50 to 80 km (31 to 50 mi) above Earth's surface Space debris begins to burn up as it enters the mesosphere. The temperature drops as you leave Earth dipping to as low as -90° C (-130° F) at the top of the layer. Where the protective ozone layer floats 16 to 50 km (10 to 31 mi) above Earth's surface The concentration of protective ozone peaks at about 22 km (14 mi) up. The stratosphere contains 20 percent of the molecules in the atmosphere and gets warmer as you go away from Earth. LOWER ATMOSPHERE **TROPOSPHERE** Where weather forms Up to 16 km (10 mi) above Earth's surface Storms take place in the troposphere, which contains about 75 percent of the atmosphere. The troposphere extends eight km (five mi) up from Earth's surface at the North and South Poles and 16 km (10 mi up) at the Equator. It gets cold near the top, as low as -75° C (-103° F). EARTH

Layers of the Atmosphere (except the Magnetosphere: Continued below.)





Normal Sunspot Activity – now increase the sunspots ALL OVER the sun for the Rev. Chapter 6 event!



Explanation of How Solar and Lunar Eclipses Work

Principal Meteor Showers					
SHOWER BE	ST VIEWING	POINT OF ORIGIN	DATE OF MAXIMUM*	NO. PER HOUR**	ASSOCIATED COMET
Quadrantid Pr	redawn	N	Jan. 4	25	_
Lyrid	edawn	S	Apr. 22	10	Thatcher
Eta AquaridPr	edawn	SE	May 4	10	Halley
Delta Aquarid Pr		S	July 30	10	_
Perseid	redawn	NE	Aug. 11-13	50	Swift-Tuttle
Draconid La	ate evening	NW	Oct. 9	6	Giacobini-Zinner
Orionid		S	Oct. 21-22	15	Halley
Taurid La	ate evening	S	Nov. 9	3	Encke
LeonidPr		S	Nov. 17-18	10	Tempel-Tuttle
Andromedid La	ate evening	S	Nov. 25-27	5	Biela
Geminid	_	NE	Dec. 13-14	75	_
Ursid	-	N	Dec. 22	5	Tuttle

*May vary by one or two days **Moonless, rural sky Bold = most prominent

Chart of Principal Meteor Showers during the Year. (Note: Major "showers" are in the Fall & Winter)