9/56 YEAR CYCLE: ALASKAN EARTHQUAKES

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A 9/56 year cycle was detected in the timing of financial panics over recent centuries (Home). This cycle was then hypothesised to be also applicable to major seismic events. Remarkably, a 9/56 year seismic cycle was established for many of the countries around the circum – Pacific belt (David McMinn). The notable exceptions were historic quakes in Japan, Taiwan and Kamchatka for whatever reason. All other regions/countries assessed showed positive correlates between 9/56 year patterns and the timing of major earthquakes. This paper considers the prospect of a 9/56 year cycle in Alaskan seismic history.

Dates expressed as YYYYMMDD.

Major Alaskan Quakes

The USGS presented a listing of major Alaskan earthquakes for the period 1898 to 2003. Of the 16 biggest quakes in Alaskan history (mag => 7.8) (see Table A, Appendix 1), 11 occurred in 9/56 year patterns as shown in Table 1. This compared with the anticipated frequency of 3.4.

Table 1

9/56 YEAR CYCLE & ALASKAN EARTHQUAKES: 1898-2004
Year ended November 15

									1899 0904 0910	1908	**1917 0531**
		1892	1901	1910	1919	1928	1937	1946	1955	**1964 0324**	1973
1930 291217	**1939 381110**	1948	**1957 0309**	1966	**1975 0207**	1984	1993	**2002 1103**			
1986 0507	1995	**2004 031217**									

Each 56 year sequence is separated by an interval of 9 years**.**
Events (mag =>7.9) in **bold** occurred in the 12 months ended November 15.
Source of Raw Data: USGS

The USGS listed 87 major Alaskan earthquakes (mag=>7.0) for the period 1898 to 2003. Of this total, 26 fell preferentially in the calendar years of the 9/56 year pattern as shown in Table 2 (significant $p < 10^{-4}$).

Table 2 9/56 YEAR CYCLE & ALASKAN EARTHQUAKES: 1898-2004
Year beginning January 1

						1899 *** **	**1908** *
1901 *	**1910** *	1919	1928	**1937** **	**1946** **	**1955** *	**1964** **
1957 **** **** 2013	**1966** *	**1975** *	1984	1993	**2002** *	2011	

Years in **bold** contain major Alaskan earthquakes (mag => 7.0) from 1898 to 2003.
Source of Raw Data: USGS

Appendix 2 shows Alaskan earthquakes over the whole 9/56 year cycle. It can be clearly seen that the quakes tend to occur in certain segments of the 9/56 year cycle, while other segments have far fewer events.

Lunar Tidal Effects

Any events falling with significance in 9/56 year patterns will always correlate with the ecliptical position of the north (ascending) node (see Diagram 2.2, McMinn, 2004). The lunar nodes are imaginary points in the heavens where the plane of the Earth's orbit around the Sun (the ecliptic) is cut the plane of the Moon's orbit around the Earth. The north node occurs where the Moon passes from below the ecliptic to above. All Alaskan earthquakes in Table 1 occurred when the lunar north node was within two narrow segments approximately opposite in the ecliptic circle:

* 225 - 285 E ^{o} - a 60^{o} segment
* 030 - 100 E ^{o} - a 70 ^{o} segment.

There were no exceptions, a finding that would be very unlikely to occur by chance. The lunar nodes have been strongly associated with Moon Sun tidal effects and this is the proposed causative factors explaining why earthquakes fall preferentially in 9/56 year patterns. How these tidal effects actually function remains a great unknown.

Conclusions

Earthquakes in Alaska fall preferentially in patterns of the 9/56 year cycle, at least for the major quakes (mag =>7.0). The 9/56 year effect probably arises because of Moon Sun tidal influences, a finding strongly supported by the close links between lunar nutation and the timing of earthquakes in 9/56

year patterns. These findings are preliminary and much follow up research is imperative in this area. Any findings could assist in understanding of Moon Sun earthquake cycles and boost the predictability of such events.

References

Alaskan Earthquake Information Center. Alaskan Earthquakes, Active Faults and Rupture Zones. http://giseis.alaska.edu/html_docs/historic_quakes_tectonics.html
McMinn, David. *Market Timing By The Moon & The Sun*. Twin Palms Publishing. 2004.
Stover, C W & Coffman, J L. *Seismicity of the United States, 1568-1989* (Revised), U.S. Geological Survey Prof. Paper 1527, 1993.
United States Geological Survey. *Earthquakes in the United States. Magnitude 7.0 and Greater*. http://neic.usgs.gov/neis/eqlists/large_usa.html

Appendix 1

Table A ALASKAN HISTORIC EARTHQUAKES (mag => 7.5): 1899-2003

Mag	Date	Location
9.2	**March 28, 1964**	**Prince William Sound**
9.1	**March 9, 1957**	**Andreanof Islands**
8.7	February 4, 1965	Rat Islands
8.2	**November 10, 1938**	**East of Shumagin Islands**
8.0	**September 10, 1899**	**Yakutat Bay**
8.0	**May 7, 1986**	**Andreanof Islands**
7.9	**May 31, 1917**	**Shumagin Islands**
7.9	**September 4, 1899**	**Near Cape Yakutat**
7.9	November 30, 1987	Gulf of Alaska
7.9	June 10, 1996	Andreanof Islands
7.9	**November 3, 2002**	**Central Alaska**
7.8	August 17, 1906	Rat Islands
7.8	March 7, 1929	Fox Islands
7.8	**December 17, 1929**	**Near Islands**
7.8	March 6, 1988	Gulf of Alaska
7.8	**December 17, 2003**	**Rat Islands**
7.7	October 9, 1900	Kodiak Island
7.7	February 6, 1916	South of Rat Islands
7.7	July 10, 1958	Lituya Bay
7.6	June 29, 1898	Near Islands
7.6	March 30, 1965	Rat Islands
7.6	July 30, 1972	Sitka
7.6	**February 7, 1975**	**Near Islands**

7.6	February 28, 1979	Mt St Elias
7.5	May 14, 1948	Alaska Peninsula

Events in **BOLD** occurred in the 12 months ended November 5 of those years in Table 1.
Source of Raw Data: USGS