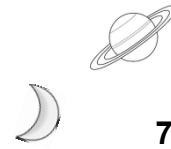


COSMIC CYCLES BRING FLOODS AND DROUGHTS TO EASTERN AUSTRALIA



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During 2010 and early 2011 the 18.6-year Lunar Flood Cycle and the 19.8-year Synodic Cycle of Saturn-Jupiter joined forces with a strong La Nina system. Together these three climate driving forces produced many extreme flood rain events across eastern Australia. These three forces are only in synchronisation for one year out of each 297 years. This means the flood events of 2010-11 should be regarded as a very rare occurrence and not a return to a wet or normal climate phase.

These two cosmic cycles should be further investigated as major drivers of extreme weather events (e.g. the long drought of 1997-2010 and 2010-11 floods in Australia). Initial evidence of correlations is presented in this article.

The gradual marriage of these two cosmic cycles with two Earth-based cycles (PDO and La Nina-El Nino) has driven the proliferation of extreme weather events worldwide during the last 60 years. There is a strong correlation revealed in the rainfall records of Central Victoria with the marriage of these two major cosmic cycles. Such effects are broadly based across Australia, with slightly different timings and strengths due to influences such as El Nino, IOD and other sea surface anomalies.

It was well-known to ancient civilizations like the Greeks and the builders of Stonehenge that the planetary cycles and lunar cycles played an important part in shaping the climate of that part of the world. Therefore it comes as no surprise to see Australia's flood and drought cycles are also influenced by these forces. The lunar and planetary cycles are particularly influential in Central Victoria. This is due to the sensitive nature of the overlapping weather forces needed to develop the climate of this area (i.e. north eastern moisture feeds systems from the Pacific, northwest jet streams, and southerly Antarctic low-pressure systems and cold fronts or "lift" systems).

The Central Victorian rainfall records reveal that these two cosmic cycles (the 18.6 year Lunar declination cycle and the 19.86 year Synodic cycle of Jupiter-Saturn) can each enhance or diminish average rainfall over prolonged periods resulting in extreme flood and extreme drought cycles. When these two cosmic cycles are closely in-phase with each other and are supported by the El Nino cycle or the La Nina cycle, extreme droughts and extreme floods are likely to occur.

These two cosmic cycles were both synchronised during the early months of 2011 and were enhanced by a very strong La Nina cycle during the preceding 9 months. Subsequently, a series of extreme floods were produced in many regions in eastern Australia, during that period. As this decade progresses, extreme droughts will again be focused in Australia as these two closely synchronised cycles move from "flood phase" back into "drought phase".

THE 18.6 YEAR LUNAR CYCLE

The force of this dominating lunar cycle is responsible for lifts in annual rainfall up to a nominal 150% above average at the peak of the cycle. At the bottom of the cycle (approximately 9.3 years later), its rain-diminishing influence is responsible for producing drought years with only 50% of average rainfall. These severe drought years are usually compounded by below-average rainfall for several years before and after the major drought year.

THE 19.8 YEAR SYNODIC PLANETARY CYCLE

This cycle is determined by the positions of the solar system planets, especially Jupiter and Saturn. When these two planets are on opposing sides of the sun and form a near straight line, our rainfall is enhanced.

This occurs on average once every 19.86 years. Approximately ten years later when Saturn and Jupiter are together on the same side of the sun, reduced rainfall for several years usually occurs.

THE COMBINED EFFECT OF THE LUNAR AND PLANET CYCLES

When combined with an El Nino or La Nina, these two cosmic cycles can each produce climate extremes, especially when the cycles are close to being synchronised. At the closest synchronisation point, the climate extremes have been devastating. These two cosmic forces work together for about 60 years of their 297-year full combined cycle. Extremes of climate are most likely to occur 9-10 years apart (flood then drought). The degree of rain enhancement also depends on which planets are close to the Earth at a particular time. In essence the combined gravitational force of all the planets moves the moon's orbit off centre by varying degrees, producing "closer than usual" perigee moon passes which results in stronger lunar air tides and increased precipitation.

A perigee moon pass is when the moon is closest to the Earth for that lunar month. The closest perigee moon passes during the two-year peak period of each 18.6 year lunar flood cycle are the times when major floods are imminent. When the Lunar and Planetary cycles are close to being in-phase and are further enhanced by a strong La Nina cycle, up to 300% of average annual rainfall is likely to occur. At the bottom of the combined cycles, several years of below-average rainfall is also common and extreme drought years of approximately one-third annual rainfall are likely to occur.

THE RECENT EXTREME FLOOD CYCLE FOR EASTERN AUSTRALIA

The first big rains of this cycle occurred in Feb-Mar 2010 as the Earth had a close encounters with Mars and then Saturn. The closest perigee moon to eastern Australia for 17 years also occurred shortly before that major rain event began. The flooding rains of Aug-Oct 2010 occurred within a few weeks of when the Earth was closest to Jupiter and then Mars. The flooding rains of Nov-Dec 2010 and Jan-Feb 2011 occurred as Venus came closest to Earth. The closest perigee moon for this lunar flood cycle occurred on 19 March 2011 as the Earth again was closest to Saturn – this was the time when Wilson’s Promontory and Tasmania had record breaking floods. Then as the earth moves away from Saturn during 2011 a rapid drop-off of autumn winter and spring rains can be expected. This is likely to be followed by average summer rains in 2012 as the Earth has more close encounters with Jupiter, Mars and Venus.

The effects of the cosmic forces on Central Victoria are illustrated later in this paper with the historical graph: **“Bendigo rainfall - correlation with two major cosmic cycles”**

(Also, see my website link to “Solar System Live” to view the positions of the planets at any time in the past or the future.)

A BREAK-DOWN OF COSMIC EFFECTS ON ACTUAL RAINFALL SYSTEMS FOR AUSTRALIA

This explanation should only be considered as an introduction to the subject. It would take a book to explain it fully. Primarily this 18.6 year lunar flood and drought cycle is driven by the declination movements of the moon. In addition this cycle is also greatly influenced by the positions of Jupiter and Saturn, especially when these planets are close to opposite sides of the sun or when they are close together. This synodic cycle occurs on a 19.86 year cycle, thus the two cycles are out of phase for most of their 297-year combined cycle period, but when the two cycles are in peak flood phase together (as they were during 2010-11) a series of extreme floods are likely to occur. These most damaging floods are born when the Earth has close encounters with Saturn, Jupiter, Mars and Venus. The magnitude of the rain-enhancement depends on which planets are close to the Earth at a particular time and how the sea-surface temperature anomalies have developed. In essence the combined gravitational force of these planets moves the Moon’s orbit off-centre by varying degrees, producing perigee moon passes. The periods shortly after each of the four closest perigee moon passes to Eastern Australia are the times when the highest rainfall events are most likely to occur in Eastern Australia. This rain enhancement is the result of increased moisture being delivered to Australia from the Pacific Ocean by the stronger Lunar-driven air tides that follow in along the path of the closest perigee moons.

During the Lunar flood cycle of 2010-11 the strongest air tides and enhanced rainfall peaks occurred in March and September 2010, then January and March 2011. With another small rain event expected during October 2011. Records reveal that 150 to 300% of monthly average rainfall has been the typical result at these peak periods. This flood cycle develops when the lunar monthly orbital arc is sweeping down from the north, with the southern lunar standstill point of its orbits close to Eastern Australia running along the Tropic of Capricorn. This lunar declination cycle is also complicit in helping developing anomalies in the sea surface temperature worldwide which produces the La Nina anomalies, on average once every 4.65 years (usually four per 18.6 year lunar cycle).

The mid-point or “drought phase” is developed when Saturn and Jupiter are closest to each other. The worst droughts usually occur when the Earth moves to the opposite side of the Sun without overtaking Mars or being overtaken by Venus. These intense dry periods can last for up to nine months and can be devastating for a particular region if this period spans the growing season of that region. During this drier phase of the cycle, (which is generally 9.3 years after the peak flood period) the Moon’s orbital arc is again drawing moisture from the Equator near South America, but this time the orbital path is sweeping up from the equator to the northern hemisphere reaching the northern standstill point while it is running along the tropic of cancer. Hence more of the Pacific moisture is moved into the northern hemisphere by the lunar-driven air tides to an area south of Japan. This brings about drought conditions in most of Australia. The flood and drought regions of this lunar cycle progress further to the west by 19.35 degrees per year (2,154 kilometers per year measured at the Equator). An example of climate extremes progressing across the continent can be seen with the large fires in eastern Australia in February 2009 followed by large fires in Western Australia in February 2011.

BENDIGO'S LONG-TERM RECORD OF THE COMBINED COSMIC CYCLES

The following graph shows the long-term rainfall record for Bendigo in Central Victoria, Australia. As mentioned earlier, the Central Victorian climate is particularly sensitive to any changes in average air movements (air tides). This is due to the generally flat terrain of the area, which means the effects of the comic cycles are more prominent than in most other places in the world.

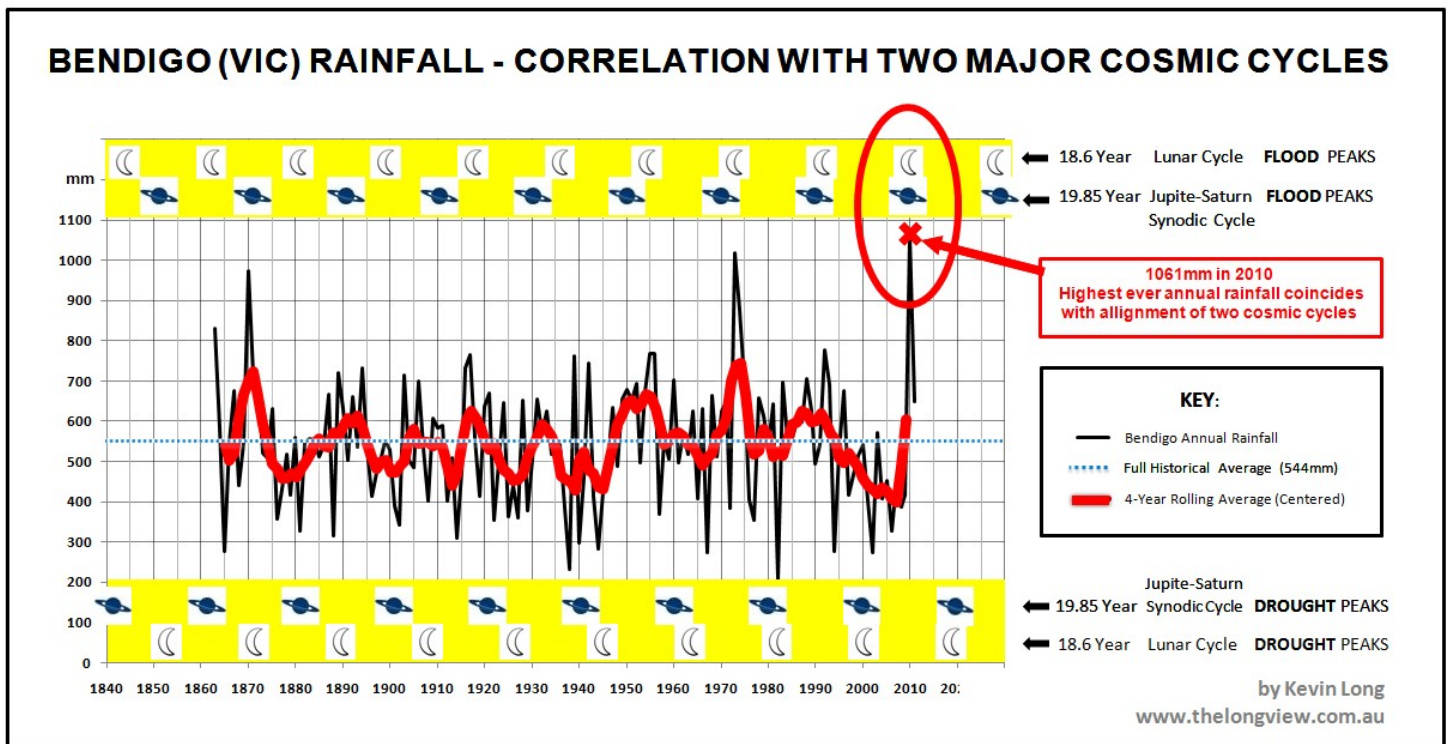
This can be seen to occur with about 80% reliability during the last 66 years.

The dominating effects are most obvious when a four-year rolling average line is used (thick line).

The spacing of the recent droughts to flood periods appears to closely follow the "9.3 year rule" (i.e. half of the 18.6 year moon cycle).

Consider the following peaks and troughs relative to the Bendigo's long-term average of 544mm:

- 1944** Severe drought (284 mm)
- 1954-6** Typical three years of major floods (average 737 mm)
- 1967** Severe drought (278 mm)
- 1973-5** Wettest ever three year flood period (average 861 mm).
- 1982** Driest year on record (206mm)
- 1992-3** Two years of flood period (averaging 729 mm per year)
- 2002** After 9 years of declining average rainfall, the 2002 drought year delivered only **271mm**.
(The lowest average rainfall on record was then maintained for the next 7 years.)
- 2010** Eleven consecutive months of above-average rainfall set a new Bendigo record of 1061mm.
(Many annual rainfall records were also broken in other regions of Australia during 2010/11.)



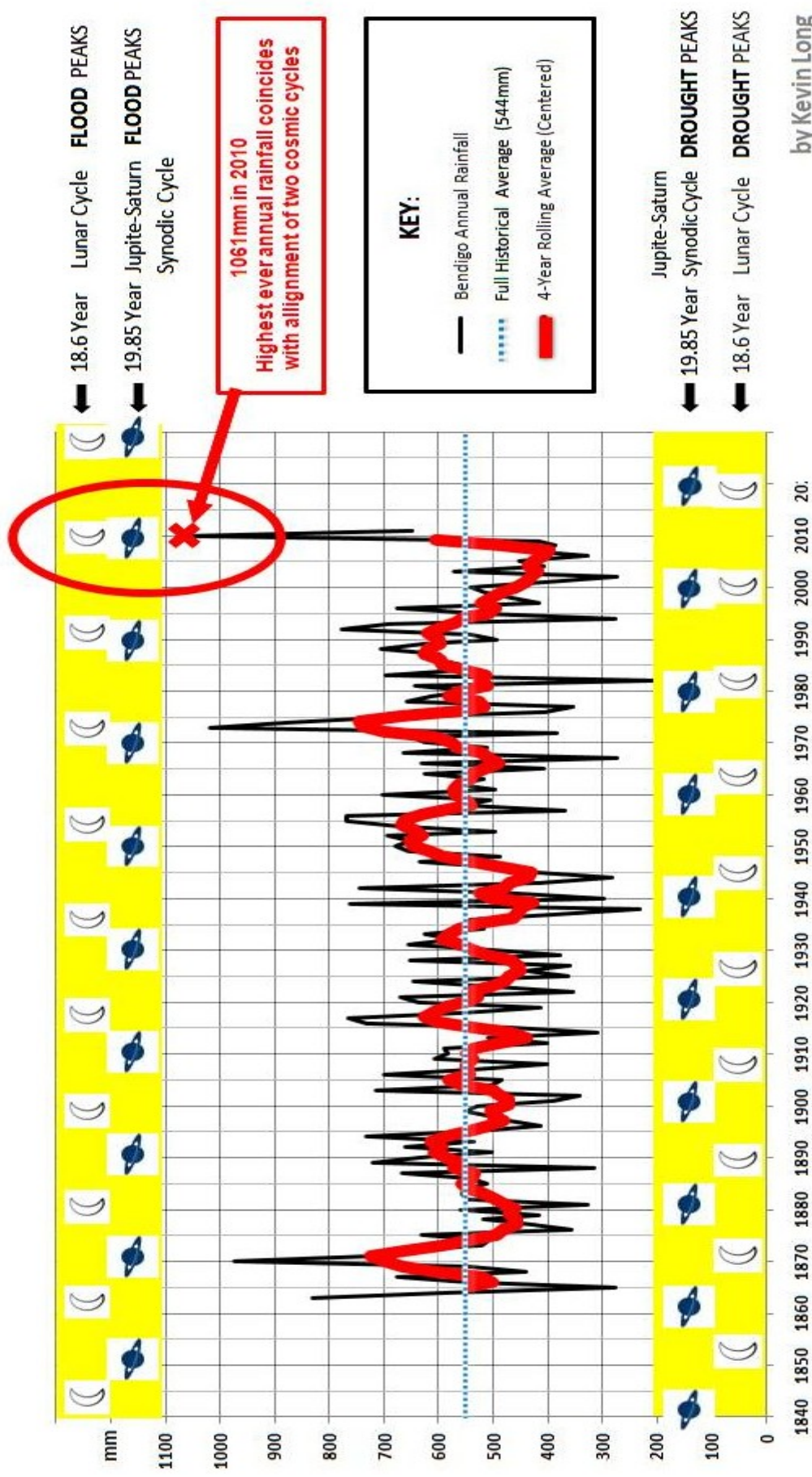
SEE NEXT PAGE FOR FULL SIZE GRAPH →

CONCLUSION

The recent extremes of drought and flood have become more pronounced as the two cosmic cycles have moved into synchronisation during the last 66 years. The most intense and highest peak occurred during 2010-11 at this most synchronized period. I conclude that this "wet phase" has now run its course and from Autumn 2011 the average rainfall will rapidly drop away again, resulting in this decade being as dry or dryer than the last decade in eastern Australia. I also warn all Australians that "the Chinese Effect" is likely to play a big part in the further drying of the eastern Australian climate in this coming decade. (See documents on my web site below explaining "The Chinese Effect" driven by Asian pollution.)

These factors, when combined with the below-average total solar radiation that has been forecast by many solar experts to dominate the next 33 years, indicate that we are facing very testing times for all types of agriculture throughout most of Australia for the foreseeable future.

BENDIGO (VIC) RAINFALL - CORRELATION WITH TWO MAJOR COSMIC CYCLES



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