**Chapter Four:** 

# **MEET THE SAROS CYCLE TRIBE** Personalities in the Eclipse Story

#### MEET THE SAROS CYCLE TRIBE

Personalities in the Eclipse Story

The Saros Eclipse Cycle creates Saros Characters, or personalities. They are born. They mature. They fade. They die. They have characteristics specific only to them. You will meet them in this section. They exist only because of one of the greatest synchronicities in all of visible existence, the co-ordination of three separate cosmic calendar alignments. Perhaps you aren't supposed to know about this. Perhaps it's reserved for the alchemists.

Three cosmic calendars align perfectly every 19 solar years in the Metonic Cycle. Three cosmic calendars align perfectly every 19 eclipse years in the Saros Cycle. And yes, the sun is the same size as the moon in the sky.

Each Saros Character is a repeating and slowly evolving curved geometrical pattern. Its existence is defined by the shadow path of a repeating solar eclipse, which returns to the earth at a regular interval and at shifting locations.

**Who discovered Saros?** Knowledge of the cycle has been around since at least the Babylonians (ca. 700 BC). They determined its existence by observing lunar eclipses repeating on 18-year and 11 day (19 eclipse year) intervals. Other ancient astronomers in both hemispheres were likely aware of the Saros repetition as it pertained to Lunar eclipses.

Determining the solar Saros cycle took much longer (until the early 18<sup>th</sup> century). Solar eclipses are hard to predict without a measured globe and understanding of earth's rotation and revolution.

Who named it and why? The honor of naming the Saros fell to Edmund Halley, British astronomer and mathematician. He is famous for the comet named after him, the orbit of which he first calculated. Halley predicted and calculated the timing and path of an eclipse over England May 3 1715, the most accurate early prediction of a solar eclipse. It is a great peculiarity that this eclipse would occur in such a specific place as London (Saros 114 with 3 minutes and 33 seconds of totality) while Halley was at the peak of his profession. He was a friend of Sir Isaac Newton. It was the last complete solar eclipse over London in our history.

Halley named the Saros for a Babylonian word that ended up meaning 3600. Saros means "sweep" in Greek. It is said he was mistaken at its meaning.

**Who numbered the Saros?** The name of each Saros Character is a number. These numbers were given by the Dutch astronomer George Van Den Bergh in the 1950's in his book, *Periodicity and Variations in Solar Eclipses* (good luck trying to find a copy) and has been since adopted worldwide. The peculiar tale of Van Den Bergh (or what little we know) appears in the personalities section.

Because of the Saros Cycle's astonishing precision, eclipses have been mapped (probably quite accurately) backwards about 4,000 years and forwards at least a thousand years. They are given numbers as they are born.

Saros Cycle 0 was born May 23 2955 BC. It had 71 events. It began life as an almost imperceptible partial, matured into a robust ring of fire and faded again as a partial until dying June 29 1675 BC. It had "lived" about 1300 years and traveled the world, in its own fashion, bringing a strange dance of the sun and moon to the inhabitants of earth. Saros Cycle 1 showed up on June 4 2872 BC.

Saros receive their number from the order in which they are born. Saros Characters mature into complete eclipses at different rates, and have different "lifespans". One Saros may have 70 events. Another may have 77, or 69. That is why, when we review the Characters in a minute, they do not appear in the earth's sky in numeric order.

In recent history, Saros Characters bear numbers between 112 and 152. There are about 40 characters, 26 of whom are currently creating complete eclipses. You'll meet them in a minute.

#### The Facts Again:

Every Saros Cycle takes exactly 19 Draconic, or eclipse, years. That is 19 x 346.62(one eclipse year, or the time it takes for the sun, moon and earth return to the same ecliptic node. This amounts to 18 years, 11 days and 8 hours. At that time, the Sun, the Earth, and the Moon return to approximately the same relative geometry in relation to the orbits, tilts and nodes of the three celestial objects. One Saros period after a given eclipse, another similar eclipse occurs, displaced by 120 degrees in longitude or one third of the earth. This displacement is due to the remaining eight hours in the duration of the Saros cycle.

The eclipses shift sometimes in latitude as well, due to the tilt of the planet. It creates an individualized pattern, as seen in the maps in this section. Only serious mathematicians can accurately predict exactly where the eclipse will land. Thankfully, they have already done this.

#### Important:

- Saros characters return every 19 eclipse years. That is 19 x 346.62 or 6585.78 days.
- A Saros is also, to within a few hours, exactly 223 Lunar (synodic) months. (The math: A lunar month is 29.53 days. 29.53 x 223 equals 6585.19 days)
- A Saros in solar years is 18 years, 11 days and 8 hours, or 19 solar years minus one lunar year.
- A Saros is also "coincidentally" almost perfectly equal (to within a day) to 239 anomalistic months (27.55 days). The math: 239 x 27.55 equals 6585.45 days. The anomalistic month is the time between perigee to perigee of the moon. It's when the distance of moon to earth as it orbits returns to about the same. This gives Saros their character, so that they stay consistent (as partial, total or ring of fire) for lengthy periods of time. Over time, they slowly change.

In the Saros Synchronicity, three different calendars align, the lunar, the draconic and the anomalistic. Quite an arrangement. God arranged the Cycle to be both predictable and unique.

So again, a Saros Cycle is all four of these at once: 19 Draconic (eclipse) years, 223 Lunar (synodic) months, 239 Anomalistic months, and 19 solar years minus one lunar year.

The Saros synchronicity is its own unique alignment. It's not to be confused with the 19-year Solar Year Metonic "coincidence" (the 19 Solar Year alignment). We look at that in the next section.

**How long do they live?** The Saros "lives" between 1200 and 1500 years. It begins its life as a partial eclipse, typically matures into a complete eclipse after a century or two, becoming Annulars, Hybrids, Totals or often, combinations of the three. After centuries, it fades again into a partial before eventually fading. They usually begin life near one of the polar regions and usually die in the opposite polar region. The Solar Saros Cycle has about 40 members at any one time, as it does now.

There are currently 14 partial eclipse personalities and 26 complete eclipse characters.

#### A note about Lunar Eclipse Saros.

Lunar Eclipses have their own Saros Cycle, repeating at opposite fortnights from the Solar Saros. Lunar eclipses accompany solar eclipses on the opposite phase of the moon. In other words, if there is a solar eclipse on a certain new moon, there will be a lunar eclipse on the full moon either two weeks before or after. That is when sun, moon have aligned into the same cosmic "node".

## Partial solar eclipses

We do not focus on or map partial solar eclipses in this work. I will note current partials and then leave them be. There are currently 14 Saros members which only create partial eclipses.

Every Total or Ring of Fire solar eclipse also creates a wide area of partiality over millions of square miles. That area may receive 99% coverage. It might receive .02% coverage. But that is not the same as the moon going perfectly in front of the sun. That alignment only happens in the narrow band of shadow produced by a complete solar eclipse, whether Total, Hybrid or Ring of Fire.

Partial solar eclipses are sometimes not even physically noticeable. 35% of all solar eclipses are partial. These are either immature and growing Saros characters or dying Saros members. By reducing consideration of partials, I believe we are better able to focus on our current cosmic tribe.

## SAROS PARTIALS: List of the 14 Saros currently creating Partial Solar Eclipses

There are two types of Saros Partials.

**Dying Saros:** These are the surviving Saros who had a history, a distinct lifetime as a complete eclipse. Now they are growing old. They will die someday.

**Growing Saros:** These are the immature Saros who have not yet become a complete eclipse. There are seven dying and seven growing partial Saros. Let's briefly meet them.

#### 7 Dying Saros still in cycle making partials:

Saros 117: Consists of 71 Events. Born on June 24, 792 AD. Matured into complete eclipse as a ring of fire on September 18, 936. Became a Hybrid on May 25, 1351. Dies Aug 3, 2054
Saros 118: 72 events. Born May 24 803 AD. Matured into complete eclipse as a total on Aug 19 947. Became a Hybrid in 1668, Annular on 1704. Last complete eclipses Apr 19 1939, the last eclipse before WWII-Hitler birthday/ Darwin Death Day. Last complete non-central annular April 30 1957, 12<sup>th</sup> anniversary of Hitler's death. Saros 118 dies in 2083

**Saros 119:** 71 events. Born on May 15 850 AD. 2 totals beginning Aug 9 994 AD (one lunar year after last Jerusalem Total in Aug 20 993 AD). Hybrid in 1030. Annular in 1048. Dies in 2112.

**Saros 122:** 70 events. Born on Apr 17 991 AD. Total begins 1135. 2 hybrids beginning 1189. Annular from 1225 to 1874 (last complete eclipse). Dies 2235.

**Saros 123:** 70 events. Born on Apr 29 1074. Annular begins 1182. Hybrid begins 1669. Total begins 1723. Last complete total on Oct 23 1957. Dies 2318.

**Saros 124:** 73 events. Born Mar 6 1049. Became total 1211. one hybrid on 1986. then partial beginning Oct 14 2004. dies in 2347.

Saros 125: 73 events. Born Feb 4 1060. totals beginning 1276. 2 hybrids beginning 1348 (Black Death). Annular begins 1384. Last complete Aug 22 1979. dies in 2358.

\* Notice that the list seems to skip Saros 120 and Saros 121. That's because they are still creating complete eclipses. Saros get their rank number from when they are born, not when they die. Saros 120 and 121 were born before Saros 122 to 125, but are currently still spending this portion of their life creating complete eclipses.

#### 7 Growing Saros (currently partial):

Saros 149: 71 events. Born Aug 21 1664. Becomes Total on 2043. Recent partial Mar 9 2007.
Saros 150: 71 events. Born on Aug 24 1729. Becomes Annular on 2126. Recent partial Feb 15 2018
Saros 151: 72 events. Born on Aug 14 1776. Becomes Annular on 2107. Recent partial on Jan 4 2011
Saros 153: 70 events. Born Jul 28 1870. Becomes Annular on 2104. Partial on Oct 23 2014.
Saros 154: 71 events. Born on Jul 19 1917. Recent partial on Sep 11 2007.
Saros 155: 71 events. Born on Jun 17 1928. Recent partial on Aug 11 2018
Saros 156: 69 events. Born on Jul 11 2011.
\*Note: Saros 152 is creating complete eclipses.

#### Case Study: SAROS CYCLE 136. An eclipse personality as an example.

We will use Saros 136 as a case study to demonstrate the life cycle of a single Saros Eclipse.

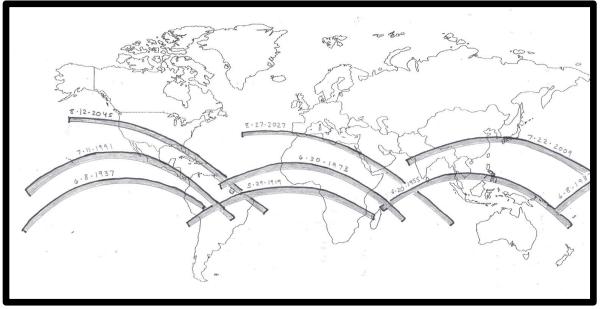
Saros 136 is the eclipse which creates the upcoming Valley of the Kings Eclipse on August 2 2027, the first line in the Mideast Cross which begins this book.

#### Facts:

Solar Saros 136 contains 71 events or "members", each occurring exactly 19 eclipse years apart. It was "born" with a partial solar eclipse on June 14 1360 (number peculiarity of 136 and 1360). It became an annular eclipse in 1504, which it remained through 1594. It morphed into a hybrid event from November 22 1612 through January 17 1703. It began total eclipses January 27 1721 and is scheduled to continue doing so through May 13 2496. The series is scheduled to end at member 71 as a partial eclipse on July 30, 2622, with the entire series lasting 1262 years.

The longest eclipse of Saros 136 occurred on June 20, 1955, with a maximum duration of totality at 7 minutes, 7.74 seconds over Southeast Asia. That was the longest total eclipse since the 11<sup>th</sup> Century. Since then, duration has become shorter with each eclipse, but Saros 136 is still producing the longest

total solar eclipses of all Saros. It produced the six longest total solar eclipses of the 20th century. It also produced the longest total eclipse of our current 21st century at 6 min 38.8 sec with the 7-22-2009 Wuhan Eclipse. Saros 136 is scheduled to ultimately produce a total of 44 total eclipses. It produces the most complete total eclipses, 44, of any Saros between the years 1209 and 2718. It brought the greatest magnitude of any eclipse since the year 540 on July 11, 1991 (Hawaii and Central America). Solar Saros 136 contains 15 partial eclipses, 6 annular, 6 hybrid and 44 total eclipses. Below is a snapshot of about 10% of its life's work.



#### Saros 136 - 1919 to 2045

145 years of Saros 136's shadows. Eight different eclipses. You can see the pattern of the geographical shift where the shadows land over the course of the centuries. That pattern slowly shifts over the centuries. Included in this diagram are some amazing eclipses. The 1955 Southeast Asia Eclipse just as the war in Vietnam began is on the lower right. The Wuhan Totality of 2009 is just above that. Go to the left of the Wuhan Eclipse and you'll find Valley of the Kings Eclipse of 2027 in the center of the map. Go to the bottom of that row and you find Einstein's Eclipse (May 29 1919) that perfectly crosses South America and Africa and proved his Theory of Relativity on John F. Kennedy's 2nd birthday. **Maximum Expression**: Perhaps you will notice that eclipse and width of the path are obvious means of determining maturity. Saros 136 achieves maximum duration in the 1955 Southeast Asia Eclipse and maximum width is still increasing, maximum width peaking with the 2027 Valley of the Kings Eclipse. The Chart below has date of eclipse, type and duration of complete eclipses in minutes and seconds. Note Metonic dates advancing 11 days and 8 hours at a time across the solar calendar.

#### Lifespan of Saros 136

BIRTH: 1360 Jun 14 Partial... 1378 Jun 25 Partial 1396 Jul 05 Partial 1414 Jul 17 Partial 1432 Jul 27 Partial 1450 Aug 07 Partial 1468 Aug 18 Partial 1486 Aug 29 Partial

Becomes Ring of Fire : 1504 Sep 08 Annular ...duration (refering to annularity) 00m 32s 1522 Sep 19 Annular...duration 00m23s 1540 Sep 30 Annular ...duration 00m17s 1558 Oct 11 Annular ...duration 00m12s 1576 Oct 21 Annular ...duration 00m08s 1594 Nov 12 Annular...duration 00m04s Becomes Hybrid:1612 Nov 22 Hybrid 00m01s...Duration (refers to totality within hybrid)0 m 01s 1630 Dec 04 Hybrid 00m07s 1648 Dec 14 Hybrid 00m14s 1666 Dec 25 Hybrid 00m24s 1685 Jan 05 Hybrid 00m35s 1703 Jan 17 Hybrid 00m50s Becomes Total Eclipse: 1721 Jan 27 Total (note all the 7's,2's and 1's). Duration of totality 01m07s 1739 Feb 08 Total. Duration ...01m27s 1757 Feb 18 Total 01m51s 1775 Mar 01 Total 02m20s 1793 Mar 12 Total...duration 02m51s 1811 Mar 24 Total...duration 03m27s 1829 Apr 03 Total...duration 04m05s 1847 Apr 15 Total...duration 04m44s 1865 Apr 25 Total duration 05m23s 1883 May 06 Total...duration 05m58s 1901 May 18 Total...duration 06m29s 1919 May 29 Total...duration 06m51s 1937 Jun 08 Total...duration 07m04s 1955 Jun 20 Total ...duration 07m08s 1973 Jun 30 Total...duration 07m04s 1991 Jul 11 Total...duration 06m53s 2009 Jul 22 Total...duration 06m39s 2027 Aug 02 Total...duration 06m23s 2045 Aug 12 Total...duration 06m06s

Saros 136 Continues as a Total eclipse for 24 more eclipses until May 13, 2496, then has 7 partial eclipses. Its last dying eclipse is scheduled for July 30, 2622.

#### THE CAST OF COMPLETE SAROS CHARACTERS

There are 26 different Saros Cycles currently creating complete solar eclipses on Earth.

Let's meet the 26 complete Saros Personalities in order of appearance using the 2015 Spring Equinox (Saros 120) as an initial milestone. By following every eclipse that happens between Saros 120's Mar 20 2015 North Pole Eclipse and its return again on Mar 30 2033 return, you will meet all current Saros characters in the order they appear on planet earth in that time frame of 19 eclipse years.

Why use Saros 120 as our benchmark? First off, it is the oldest Saros still creating complete eclipses, born as a partial in 993 AD (coincidentally the last year Jerusalem had a total eclipse). Secondly, it has a particularly extraordinary past, appearing at important times in important places. Finally, its last two complete eclipses, in 2015 and 2033, help frame the portrait this work seems to paint.

The Mar 20 2015 eclipse ended directly at the North Pole. The 2033 Mar 30 eclipse connects both hemispheres simultaneously at the Bering strait. It is unclear whether either of these "achievements" have ever occurred before. They are almost impossibly precise in their peculiarities. Also, if the

traditional date of Apr 3 33AD for the Crucifixion of Jesus Christ is accepted, then the Mar 30 2033 AD Bering Strait eclipse would be almost exactly 2,000 years since that momentous event. That's why we'll begin with Saros 120. Again, they do not advance in numeric order but in order of appearance.

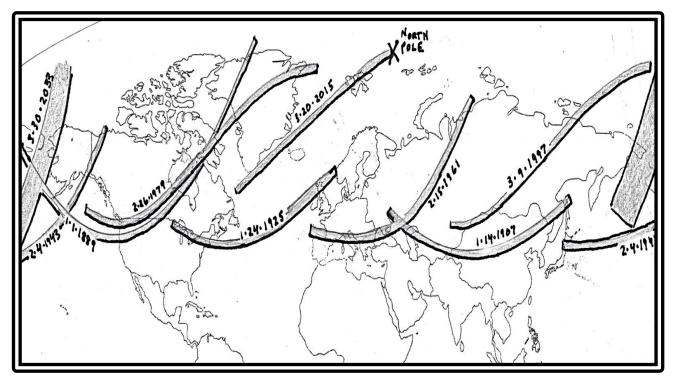
The Saros, of course, runs two ways: into history and into the future. They can be calculated very precisely due to their extraordinary alignment with our concept of standard calendar time, allowing for both prediction of future eclipses and the transposing of eclipses into history.

A careful look at these eclipses reveals them linked in various fashions with other eclipses in the cycle, For instance: looking at the dates of every other eclipse, we find the days of the year eclipses occur will often be identical or sometimes one or two days apart, occurring at 19 year intervals in the Metonic cycle. These Metonic pairings can be found in eclipses exactly 10 Saros apart. Meaning, identical calendar dates 19 years apart are found in Saros 120 and 130 and again with Saros 140, Saros 135 and 145 share the same dates, etc.. You'll see. Don't get bogged down. Just meet them.

Certain eclipses are paired during much of their lives. Saros 136 and Saros 141 happen 177 days apart century after century, and respectively give the longest Total and Ring of Fire Eclipses. There are scientific reasons for that.

Also, slight wobbles in dates along calendar cycles are to be expected because of both the artificial time zones and very real orbital realities of earth.

This extraordinary reality of the Saros (and its interactions with the Metonic Cycle) involves the brilliant co-ordination of cosmic timekeeping set forth by an omniscient Creator God. We look deeper at the Metonic Cycle after we have met the Saros.



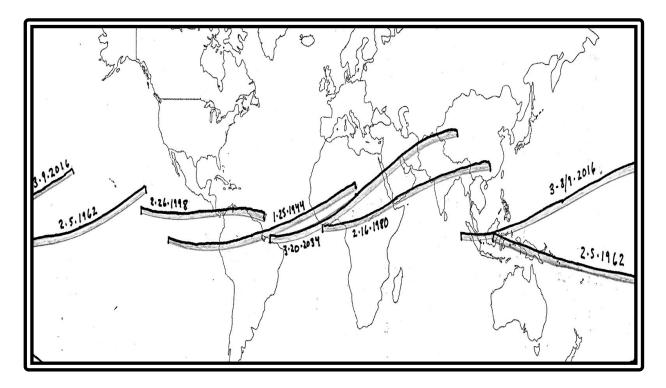
## Saros 120 Total Eclipse: A snapshot from 1889 to 2033

Saros 120 has 71 events Born: May 27, 933 AD Matured: August 11, 1059.

1889 Jan 1 New Year's Day USA/Canada
1907 Jan 14 Europe/China/ Russia
1925 Jan 24 Roaring Twenties USA to England
1943 Feb 4 USA/Japan Wartime Eclipse
1961 Feb 15 The Great European Iron Curtain eclipse
1979 Feb 26 Mount Saint Helens/ Microsoft Eclipse
1997 Mar 9 Mongolia/USSR
March 20 2015 North Pole Spring Equinox Total Eclipse. Ended immediately at North Pole.

**Bering Strait Eclipse of Mar 30 2033**, Links the USA and Russia and International Date Line simultaneously. 4 days before the traditional 2000<sup>th</sup> anniversary of Crucifixion. The 2033 event is Saros 120's last complete eclipse, ending a run of complete eclipses that began August 11 1059.

All Saros 120 eclipses in this 125-year study period are over Northern Hemisphere Modern Empires.



## Saros 130 Total Eclipses 1926 to 2034

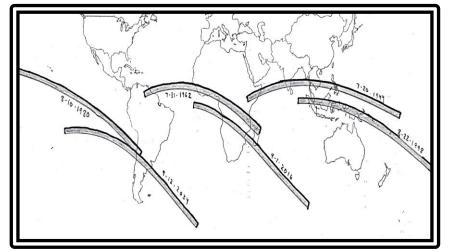
Saros 130 has 73 events Born: Aug 20 1096. Matured: Apr 5 1475

1926 Jan 14 Africa to Indonesia
1944 Jan 25 South America to Africa
1962 Feb 5 New Guinea/Open Ocean
1980 Feb 16 Africa to India
1998 Feb 26 Pan American Isthmus Eclipse
2016 Mar 9 Indonesia and Pacific 3-8/9 2016

**2034 Mar 20** Its next eclipse is the tremendous Spring Equinox Eclipse creating the Mideast Cross, on the 19th Metonic year to the day from Saros 120's North Pole Equinox.

Look at the dates above and you will see them Metonically linked with Saros 120 and with Saros 140...the days will be either identical or one day apart, at 19 year intervals. This extraordinary reality is underappreciated and involves the co-ordination of cosmic timekeeping set forth by God.

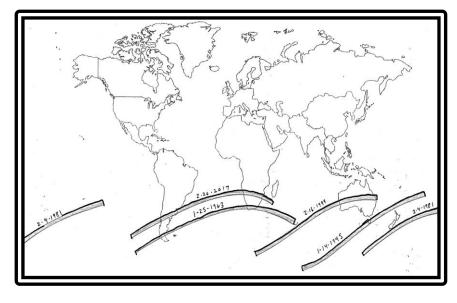




Saros 135 has 71 events. Born Jul 5 1331 matured Oct 21 1511

1926 Jul 9 South Pacific (not pictured)
1944 Jul 20 South Asia to SE Asia
1962 Jul 31 S. America to Africa
1998 Aug 22
Indonesia/Philippines
2016 Sep 1 Africa to ocean.
2034 Sep 12 South America

You will see these same Metonic dates appear again in Saros Cycle 145.



**SAROS 140** 

# Saros 140 –Ring of Fire 1945 to 2017

Saros 140 has 71 events. born Apr 6 1612 matured Jul 21 1656

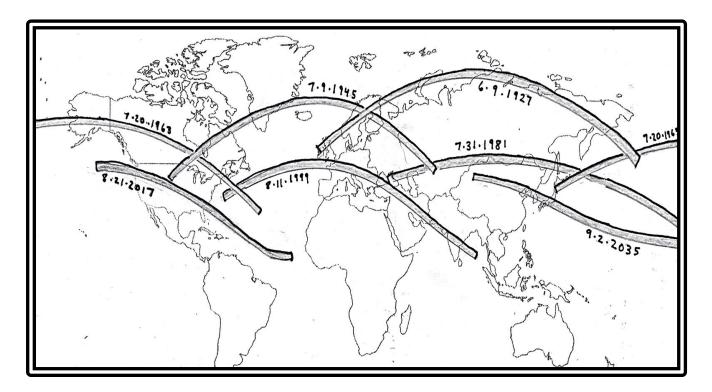
1927 Jan 3 Ocean--Australia to Patagonia (not pictured)
1945 Jan 14 Ocean to Hobart Tasmania
1963 Jan 25--Extreme South America to extreme South Africa
1981 Feb 4 South pacific no land.

Grazes southern New Zealand.

**1999 Feb 16** Atlantic Ocean to Australia (the second to last eclipse of the 20th Century) **2017 Feb 26**--Patagonia South America to Africa.

Next appearance--2035 Mar 9 Wellington New Zealand (single city eclipse not pictured)

This eclipse is currently residing in the Southern hemisphere, preferring mostly open ocean. You will notice the calendar dates are in line with Saros 120 and 130 i.e. Feb 26 and Jan 24/25



## Saros 145 Total Eclipse 1927 to 2035

Saros 145 has 77 events. It is the only current Saros to have 77 events. Born Jan 4 1639 matured Jun 6 1891 for one ring of fire exactly 77 years before RFK assassination. One hybrid in 1909. Became Total in 1927 One of the greats.

1927 Jun 29 Liverpool

1945 Jul 9 Atom Bomb Eclipse USA to USSR (one week before first A-Bomb Test)

1963 Jul 20 The 60's Eclipse USSR to USA (Maine)

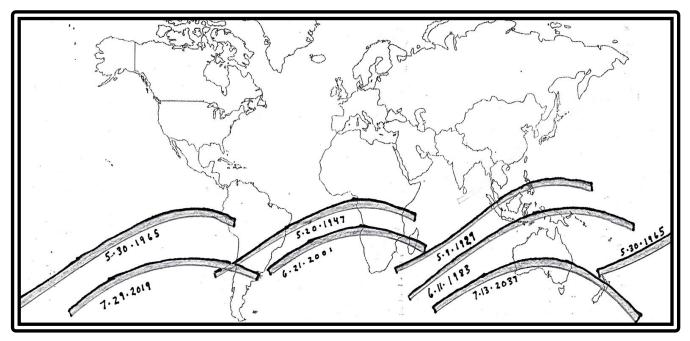
1981 Jul 31 USSR Judgment

1999 Aug 11 End of the Millennium/ Asia Mideast and Europe

2017 Aug 21 The Great American Cross-Country eclipse.

2035 Sep 2 China/Beijing/ Pyongyang/Tokyo

Too awesome to be dismissed. Dates Metonically linked with Saros 135.



## Saros 127 Total Eclipse: Snapshot 1929 to 2037

Saros 127 has 82 events born 10-10-991 matured May 14 1352

1929 May 9 Open Ocean SE Asia

1947 May 20 South America to Africa/ Columbus Death metonic

**1965 May 30** Open Ocean/JFK Birthday

1983 Jun 11 Indonesia

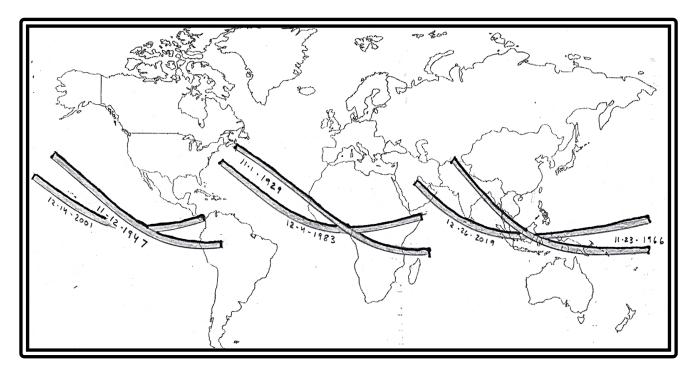
2001 Jun 21 South Africa Ring of Fire Summer Solstice. The last eclipse before 9-11

2019 Jul 2 Pope Francis Eclipse (ends at sunset at Buenos Aires)

2037 Jul 13 Australia/New Zealand; the last of the Monday Hepton Judgment series.

Famous ancient history: Saros 127 also created the Aug 8 1496 Mayan/Aztec Apocalypse Eclipse. When the Great Pyramid of Tenochtitlan was dedicated in 1487 the Aztecs recorded that 84,000 people were ritually sacrificed in four days.

Metonically in line with Saros 137



## Saros 132 Ring of Fire Snapshot 1929 to 2019

Saros 132 has 71 events born Aug 13 1208 matured Mar 17 1569

**1929 Nov 1** Stock Market Crash Eclipse ( 3 days after Crash)—North American coastal waters to Africa **1947 Nov 12** Pacific Ocean to barely touch South America

**1965 Nov 22/23** Southeast Asia/New Guinea PT 109 Eclipse on JFK Death Day Metonic two years after his assassination.

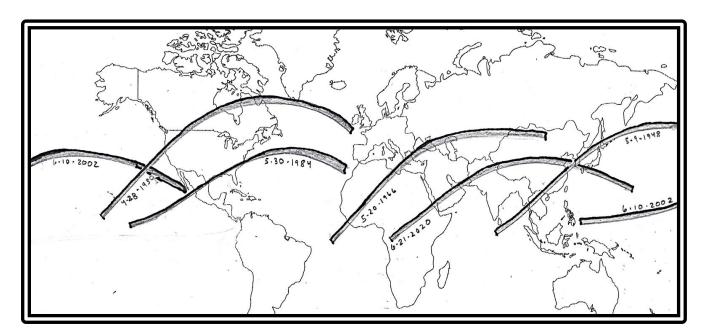
1983 Dec 4 Atlantic across Africa to Horn of Africa

2001 Dec 14 Pacific Ocean to Pan-American Isthmus (Panama Canal)-first eclipse after 9-11.

**2019 Dec 26** Tsunami Anniversary Ring of Fire. Travels path of great tsunami backwards from Oman to Sri Lanka to Sumatra on 15<sup>th</sup> year anniversary of that catastrophe.

Peculiar in its self-crossing pattern every 54 years. Linked Metonically with Saros 142

Saros 137



## Saros 137 Hybrid/ Ring of Fire Snapshot 1912 to 2020

Saros 137 has 70 events: born May 25 1389 matured Aug 20 1533

1912 Apr 17 (as Hybrid) Titanic Eclipse...3 days after Titanic sank, eclipse across Europe

**1930 Apr 28** (as Hybrid) San Francisco...San Francisco's only totality in centuries. It was only 1 kilometer wide and lasted for a few seconds.

**1948 May 9** (one of the closest to total ring of fires possible. 99.999% in places) Korea/ SE Asia a few years before Korean War. Splits both Vietnam and Korea in half.

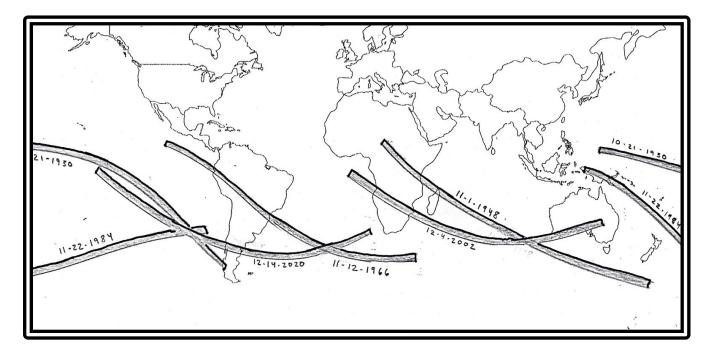
**1966 May 20** (very close to total/hybrid --99.9% in places) Africa/ Europe/USSR /China on Columbus Death Day Metonic 560 years after his death...Athens and Istanbul and Tripoli in the path

**1984 May 30** (almost hybrid-99.77%) Washington DC/New Orleans/Atlanta on JFK birthday Metonic

2002 Jun 10 Ocean

**2020 Jun 21** Summer Solstice Father's Day Pandemic Ring of Fire: Africa to China. 83% in Wuhan.

In Metonic alignment with Saros 127



## Saros 142 Total Snapshot 1912 to 2020

Saros 142 has 72 events- Born Apr 17 1624 Matured Jul 14 1768

1912 Oct 10 South America/ Ocean

1930 Oct 21 all Ocean

1948 Nov 1 Small part of Africa/ Ocean

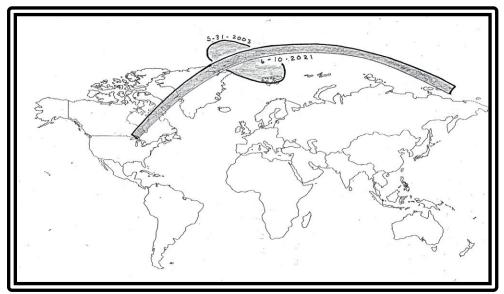
1966 Nov 12 South America/ Ocean

1984 Nov 22 Almost open ocean/ New Guinea PT 109---last JFK Death Day Metonic

2002 Dec 4 South Africa/ Indian Ocean

2020 Dec 14 Electoral College Eclipse

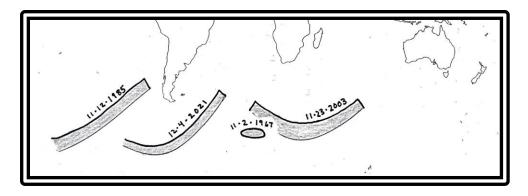
Linked Metonically with Saros 132



#### Saros 147 Ring of Fire snapshot 2003 to 2021 Saros 147 has 80 events born Oct 12 1674 and matured May 31-2003

2003 May 31 Northern latitudes 2021 Jun 10 Canadian Judgment Ring of Fire

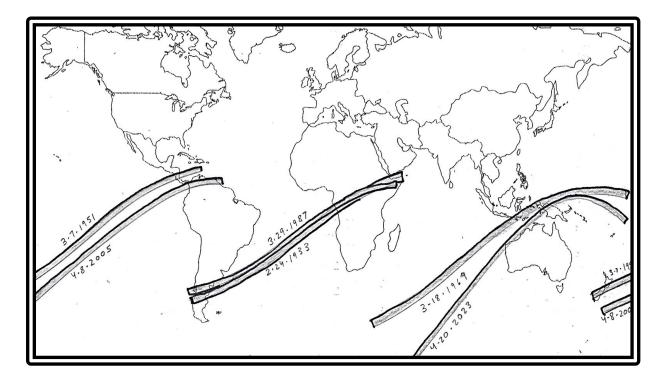
Saros 147 is just now maturing into a complete eclipse, becoming annular for the first time in 2003.



Saros 152

#### Saros 152 Snapshot 1967 to 2021

Just began maturing in 1967...all these eclipses occur near Antarctica 152 Saros 152 has 70 events and was born Jul 26 1805 1967 Nov 2 1985 Nov 12 2003 Nov 23 2021 Dec 4 Metonically linked with Saros 142 and 132



## Saros 129 Ring of fire maturing into a Hybrid: Snapshot 1933 to 2023

Saros 129 has 80 events-Born Oct 3 1103 Matured: May 6 1464

**1933 Feb 24** South America to Africa ...has an astonishingly similar path to the 3-29-1987 eclipse/ almost identical. Only Saros I found that precisely overlapped itself in such a way.

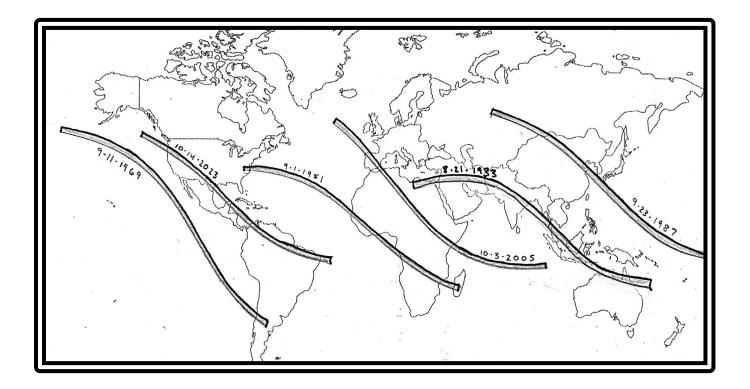
1951 Mar 7 Isthmus of the Americas

1969 Mar 18 Ocean and Indonesia

**1987 Mar 29** South America/ Africa (not only the overlap of this eclipse and 1933 eclipse is unique); This 3-29-1987 eclipse has partner in 1987 with eclipse on 9-23, thus a palindrome of 3-29 and 9-23.

2005 Apr 8 No land but Pan-American Isthmus on 19-year Metonic before 4-8-2024 USA

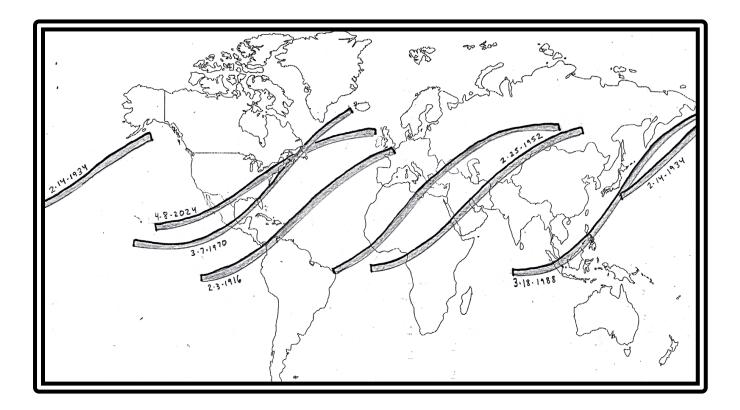
**2023 Apr 20** Australia Hybrid. First time Hitler birthday appears in 500 years (Metonic had been lodged at 4-19 Darwin death Day for a century) ...4-20 is a catch phrase in America and elsewhere...



## Saros 134 Ring of Fire Snapshot 1933 to 2023

Saros 134 has 71 events Born Jun 22 1248 matured Oct 9 1428

- 1933 Aug 21 Great Jerusalem Ring of Fire
- 1951 Sep 1 Jamestown USA to Angola Africa
- 1969 Sep 11 Ocean and extreme South America. First appearance of 9-11 Metonic in centuries,
- 1987 Sep 23 China and Ocean. Here's that 9-23 palindrome in 1987, see 3-29-1987 Saros 129
- 2005 Oct 3 in Spain and Africa
- 2023 Oct 14 Great American Ring of Fire



## Saros 139 Total Eclipses Snapshot 1916 to 2024

Saros 139 has 71 events. Born May 17 1501. Matured Aug 11 1627.

1916 Feb 3 Pan-American Isthmus to France during WWI

1934 Feb 14 Ocean Valentine's Day Pacific

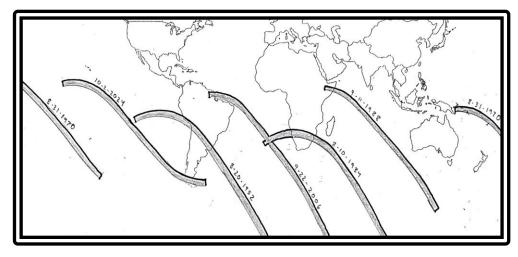
**1952 Feb 25** Iranian Shahrud Eclipse--Africa/ Arabia...first half of the Iran Shahrud Cross. This one is the year *before* the Shah was installed in a coup.

1970 Mar 7 USA end of 60's eclipse, along Eastern seaboard.

1988 Mar 18 Indonesia, Southern Philippines

2006 Mar 29 second line of Great Turkish Cross

**2024 Apr 8** First New Moon after Easter; a total eclipse crosses Mexico, USA, and eastern Canada as second line in Hepton Cross. This is the fourth significant cross 139 makes in relation with 145.



#### Saros 144 Ring of Fire: Snapshot 1934 to 2024

Saros 144 has 70 events. Born Apr 11 1736 matured Apr 7 1880

1934 Aug 10 South Africa on Temple Destruction Metonic

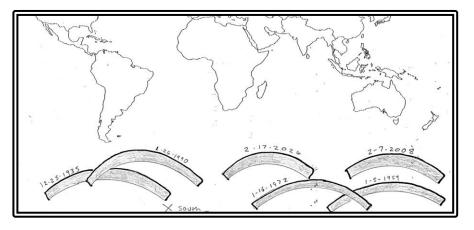
1952 Aug 20 South America and Ocean

1970 Aug 31 Ocean

1988 Sep 11 Mogadishu Somalia 9-11 Sunrise Single City Eclipse

2006 Sep 22 Fall equinox and Ocean

2024 Oct 2 Chile and Ocean



## SAROS 121

#### Saros 121 Ring of Fire snapshot 1935 to 2008

Saros 121 has 71 events born Apr 25 944 matured Jul 10 1070

1935 Dec 25 Christmas in Antarctica

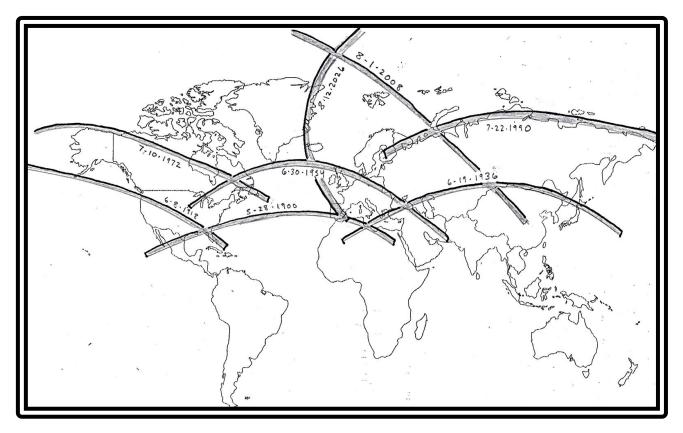
1954 Jan 5

1972 Jan 15/16 Martin Luther King would have been 43.

#### 1990 Jan 26

## 2008 Feb 7

Saros 121 has its last complete eclipse in 2044 after being lodged near Antarctica for centuries. Connected Metonically with Saros 131 and Saros 141. Next appearance 2-17-2026



## Saros 126 Total eclipse Snapshot 1900 to 2026

Saros 126 has 72 events Born Mar 10 1179 matured Jun 4 1323

**1900 May 28** USA to Luxor, Egypt. First eclipse of the 20<sup>th</sup> Century.

1918 Jun 8 Great USA Century Eclipse, Spanish Flu, WW1 ends 5 months later.

1936 Jun 19 USSR/ Europe

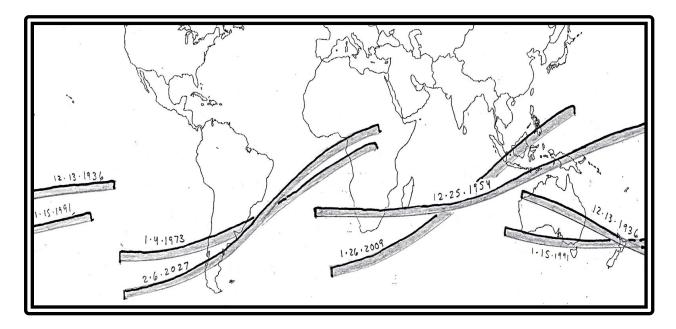
1954 Jun 30 USA to Iran (via Europe)..second half of Shahrud Cross one year after coup in Iran.

**1972 Jul 10** "You're So Vain" eclipse---Nova Scotia. The only time a specific solar eclipse has been mentioned in a popular song. Lyric: "you flew up to Nova Scotia to see a total eclipse of the sun". "You're so Vain" reached number one in the USA for 3 weeks in early 1973.

1990 Jul 22 Northern latitudes

2008 Aug 1 Siberia

**2026** Aug 12 Spanish Judgment. Diving down from the north over Reykjavik, Iceland and then Spain. Like the previous Saros (121) Saros 126 also has its last complete eclipse in 2044. Saros 120, 121 and 126 all experience their last complete eclipses within 11 years of each other.



## Saros 131 Ring of Fire: Snapshot 1918 to 2027

Saros 131 has 70 events Born Aug 1 1125 matured Mar 27 1522

**1918 Dec 3** (not pictured). Three weeks after Armistice of 11-11-1918 that ended WW I. Enters Atacama Desert of South America. Less than 24 hours later, a massive earthquake devastates the city of Atacama, Chile.

**1936 Dec 13** New Zealand/ Australia...3 days before birth of Pope Francis.

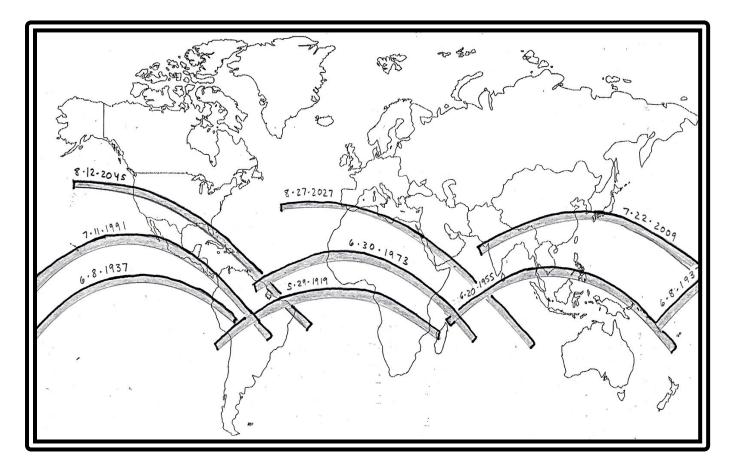
**1954 Dec 25** Christmas in South Africa...one of two Christmas complete Eclipses in 20<sup>th</sup> Century, the other occurred in Antarctica with Saros 121, 19 years previously.

**1973 Jan 4** Eclipse in Chile 9 months before 9-11 coup. Ends in central Africa.

**1991 Jan 15** Tasmania/New Zealand. Martin Luther King birthday Metonic on what would have been his 62<sup>nd</sup> birthday.

2009 Jan 26 Ocean

2027 Feb 6 South America to Africa



## Saros 136 Total: Snapshot 1919 to 2045

The Saros that we earlier used as an example. More info at the beginning of Chapter.

1919 May 29 JFK 2nd Birthday/Einstein's Eclipse

1937 Jun 8 --- Ocean

1955 Jun 20 Vietnam/ Southeast Asia...longest total eclipse in 1,000 years as war begins in Vietnam

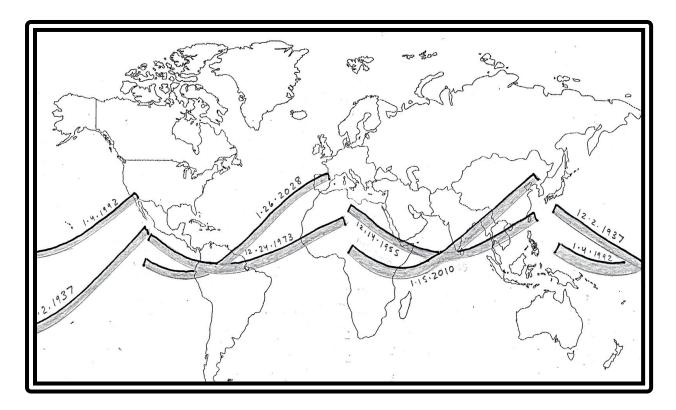
1991 Jul 11 Hawaii/ Central America

2009 Jul 22 Wuhan Eclipse, ten years before pandemic. India/China (including Shanghai)/ Japan

2027 Aug 2 Valley of the Kings...Rock of Gibraltar/Tripoli/Luxor/Mecca

2045 Aug 12 Synchronicity Eclipse USA

7 extraordinary eclipses. Saros 136 is Metonically connected with Saros 126. It has maintained a "semester series" with Saros 141 for centuries, which follows with ring of fires every 177 days



## Saros 141 Ring of Fire: Snapshot 1919 to 2028

Saros 141 has 70 events born: May 19 1613 matured Aug 4 1739

**1919 Nov 22** JFK Death Premonition Eclipse (not pictured). More at USA and world eclipses---Texas to Africa 44 years before assassination

1937 Dec 2 Ocean

**1955 Dec 14** Vietnam/ Southeast Asia -177 days after 1955 Southeast Asia Total Eclipse. Longest Ring of Fire in the last thousand years at more than 12 minutes.

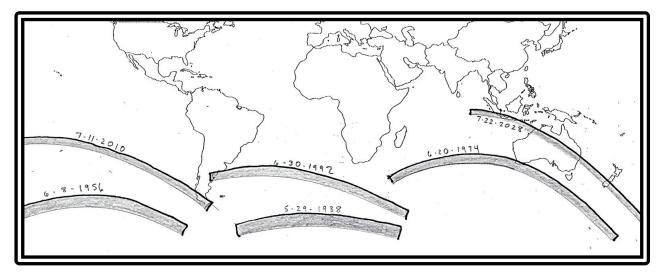
**1973 Dec 24** Christmas Eve/South America to Africa, on Anthony Fauci's 33rd Birthday, ho, ho, ho.

**1992 Jan 4** LA Sunset Eclipse. Path across ocean to end over Southern California at Sunset. Four months before the LA riots.

2010 Jan 15 Martin Luther King's 81st Birthday -- Africa to China

2028 Jan 26 Spanish Ring of Fire. South America to Spain. Ends at sunset on eastern Spanish border.

Saros 141 has a great history, including the farewell Father Abraham USA eclipse of Oct 19 1865. It produced the longest central eclipses of the last thousand years. It shares Metonic with Saros 131.



## Saros 146 Total Eclipse: Snapshot 1920 to 2028

Saros 146 has 76 events born Sep 19 1541 matured May 29 1938

**1920 May 18** Partial (not pictured). The day Pope John Paul II was born. 60 years to the day before Mount Saint Helens eruption.

**1938 May 29** JFK's 21st Birthday. Eclipse over wreck of Shackleton's destroyed ship Endurance. First complete eclipse of Saros Cycle 146

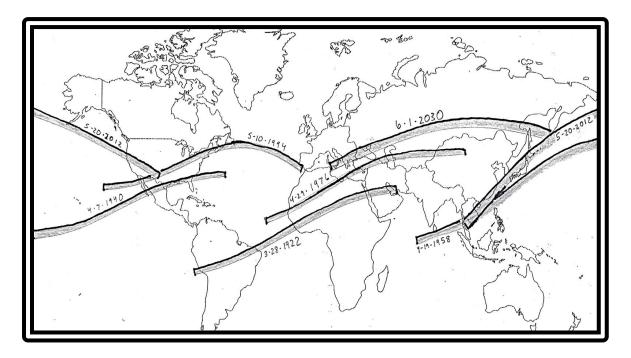
1956 Jun 8 Antarctica

1974 Jun 20 Antarctica--scraping Australia.

1992 Jun 30 Montevideo, Uruguay Single City Eclipse

**2010 Jul 11** Easter Island and Extreme South Pacific...tiny and mysterious Easter Island receives a Total eclipse exactly one lunar year after Wuhan Totality.

2028 Jul 22 Australia Judgment. Totality at Sydney and Botany Bay



## Saros 128 Ring of Fire Snapshot 1922 to 2030

Saros 128 has 73 events Born Aug 29 984 Matured May 16 1417

1922 Mar 28 Egyptian Independence Eclipse/ King Tut -South America to Africa

1940 Apr 7 Mexico/USA Deep South. 84 years before 2024 Apr 8 Great North American Eclipse

1958 Apr 19 Darwin Death Day Metonic Vietnam etc... Part of Southeast Asia Eclipse Swarm

1976 Apr 29 North Africa to China

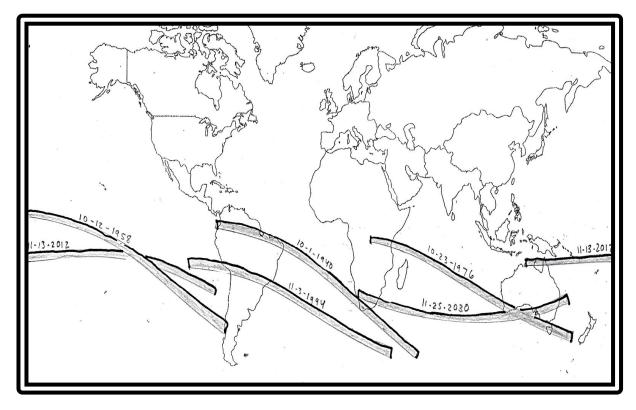
1994 May 10 USA Ring of Fire

2012 May 20 Columbus Death Day -Hanoi, Vietnam to USA (ends at Midland Sunset)

2030 Jun 1 Athens/Istanbul / Russia/Kazakhstan/ Japan

Metonically aligned with Saros 138

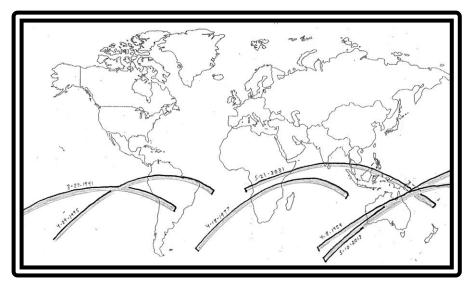
Saros 133



## Saros 133 Total eclipse: Snapshot 1922 to 2030

Saros 133 has 73 events: born Jul 13 1219 matured Nov 20 1435

- 1922 Sep 21 Australia Equinox (not pictured)
- **1940 Oct 1** South America to Africa-8 days before John Lennon is born.
- 1958 Oct 12 Columbus Day Pacific Ocean
- 1976 Oct 23 Australia barely
- 1994 Nov 3 South America
- 2012 Nov 13 Ocean/North Australia
- 2030 Nov 25 Part of Monday Hepton Series---British Empire /South Africa to Australia



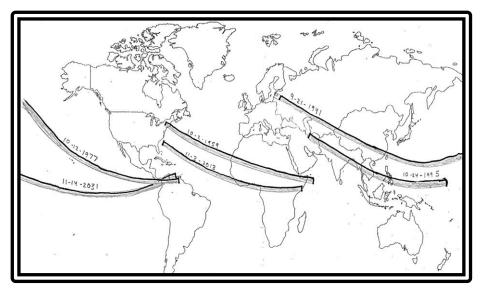
# Saros 138 Ring of Fire 1941 to 2031

Saros 138 has 70 events: B. Jun 6 1472. Matured Aug 31 1598.

**1941 Mar 27** Ocean to South America

**1959 Apr 8 Australia** –first appearance of April 8<sup>th</sup> Metonic, returning in 2024.

1977 Apr 18 South Africa
1995 Apr 29 South America
2013 May 10 tiny bit Australia/South Pacific
2031 May 21 ---Africa/India/ Indonesia...end of Columbus Death Day Metonic



Saros 143 Total Eclipse: Snapshot 1923 to 2031

Saros 143 has 72 events. B. Mar 7 1617 matured Jun 24 1797

**1923 Sep 10** Japan Earthquake/ L.A Metropolis

**1941 Sep 21** Equinox USSR/China

1959 Oct 2 JFK Election Boston

Single City Sunrise

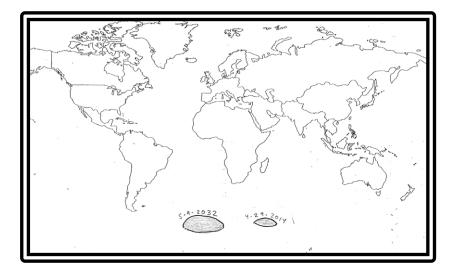
1977 Oct 12 Columbus Day Metonic North Pacific to Colombia

1995 Oct 24 Iran to Southeast Asia

2013 Nov 3 Hybrid US coastal waters to Africa

**2031 Nov 14** Hybrid Pacific to Panama as Totality begins to fade from Saros 143

Saros 148



Saros 148 is just becoming an annular. It has 75 events and was born 9-21-1653

**2014 Apr 29** first complete eclipse with a tiny spot of annularity in Antarctica **2032 May 9** South Atlantic

In this chapter we have outlined the recent behavior of the 26 Saros which are currently creating complete eclipses. In perusing these last pages, you will have seen the artistic bearings of all complete solar eclipses visible from earth in the last ninety years or so.

Some of them are truly superstar personalities. Others show up with a significant eclipse every now and then. Some linger around the uninhabited oceans and poles. Some are young. Some are old. Surely they all are necessary to create the cosmic mechanics and aesthetic intrigues of the eclipse phenomenon.

Solar eclipses are a largely unexplored territory of creative reality. They are the work of an Artist who lives outside of Time and weaves stories on Time with the shadows of the moon and the human mind. He created the Saros and all these alignments so we could witness this element of His art someday. We are at Saros 152 by the way, for those familiar with the 153 number of fish caught by the disciples in the presence of the resurrected Jesus in John 21:11.

God's designs are thoughtful and fun, like something a great Dad would do for his kids. These personalities interact with each other and with history in many ways. We can only study a few.

Since 1900, we have been considering about 177 complete eclipses. Of these, we will edit down to only the most peculiar eclipses, combinations, and crosses.

After we review the Metonic Cycle, we'll list them all since 1900 and take a closer look at some.

All Glory to God, who set the sun and moon.