

The Papua New Guinea and Western South America  
Terrestrial Gravitational Anomaly Plane and the First  
Observation of the Allais Effect during the June 30th  
1954 Solar Eclipse

Note 6

Ed Oberg  
Tony Gill  
11 March 2013

# The Papua New Guinea and Western South America Terrestrial Gravitational Anomaly Plane and the First Observation of the Allais Effect during the June 30th 1954 Solar Eclipse

by  
Ed Oberg obergeau@yahoo.com  
Bulli  
New South Wales  
Australia

in collaboration with  
Tony Gill  
Darwin  
Northern Territory  
Australia

## Introduction/Background

This note describes how a plane defined by two regions of significant terrestrial gravitational anomalies (TGA) and the center of the Earth was developed and the observations of the interaction of that plane with the solar and lunar subpoints during the solar eclipse of 30<sup>th</sup> June 1954 (Saros Series 126 Member 44 of 72). We also present in conjunction with the discussion on the above interactions, the observations of M Allais in Paris, France. Allais conducted an experiment during the eclipse, where the azimuth of a paraconical pendulum was continuously recorded throughout the eclipse.

The findings/observations in this brief note are presented with the view to inform, in particular, all parties who have an interest in the Allais Effect (AE).

By way of background, an extensive amount of literature re work conducted on the AE is available on the internet and in traditional published formats. These publications include experimental work at the 'coal face', i.e. on site during eclipses as well as extensive reviews and the collation of AE literature. The following sources provide a comprehensive background to this work:

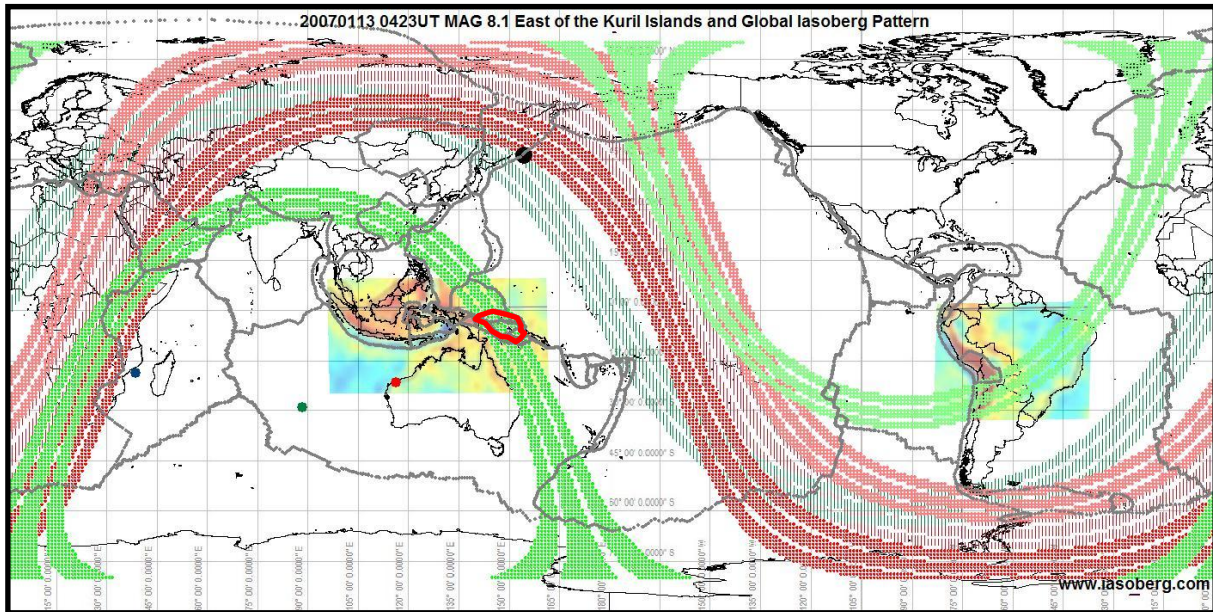
- [http://en.wikipedia.org/wiki/Allais\\_effect](http://en.wikipedia.org/wiki/Allais_effect)
- Chris P. Duif, *Principal - Cover article in the New Scientist*, Nov-27, 2004
- *Proceedings of VI Mexican School on Gravitation and Mathematical Physics*, "Approaches to Quantum Gravity" in the *Journal of Physics: Conferences Series* of the Institute of Physics (IoP-USA). Nov. 21-27, 2004, Mexico. Xavier Amador
- *Should the Laws of Gravitation be Reconsidered? The Scientific Legacy of Maurice Allais* – ed. H Munera <http://redshift.vif.com/BookBlurbs/Allais-Gravitation.htm>

## PNGWSATGA Plane

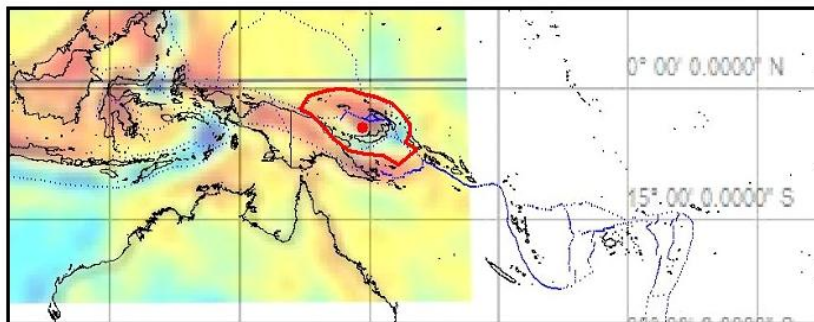
The development of the above plane was a serendipitous process. It started with the casual observation of the coincidence of the occasional instants when 1) the greater TGA near Papua New Guinea (PNG) intersected the elements<sup>1</sup> (*iasobergs*) of the Iasoberg Model<sup>2,3</sup> and 2) the 7+ earthquakes occurred. The process ended with the identification of 3 points in and on the Earth that determined a plane of interest styled the *PNGWSATGA plane*.

After the initial observation Oberg conducted a study on 211 7+ earthquakes from January 1 2000 to February 2013. The study analysed  $\Delta t$  between the time of a 7+ event and the instant of intersection of the mid band of an iasoberg with a specific area within the greater PNG TGA region see Fig 1. For the purposes of the study an exploratory area with a specified centroid in the PNG region was identified to enable a time difference in the study to be quantified. The exploratory area (PNGTGA) and its centroid 149E 4S are shown at Fig 2.

The results of this analysis were provided to Mr T Gill, a spatial data/information expert. Using the analysis, Oberg and Gill sought to explore a correlation between the instants of iasobergPNGTGA intersections and the 7+ seismic events.

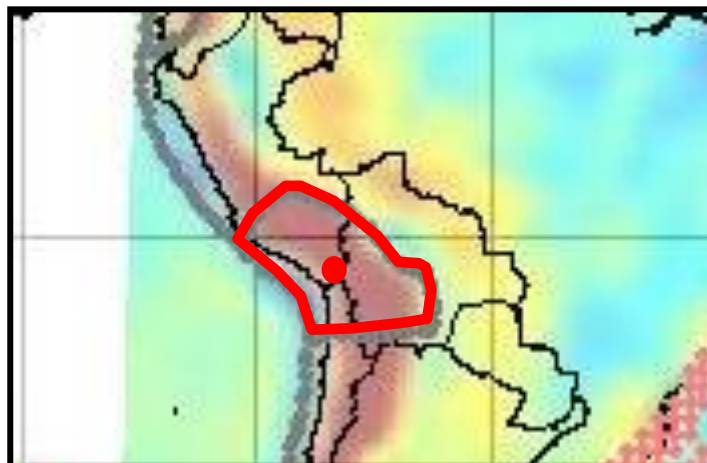
**Fig 1 Global Iasoberg Pattern at 20070113 0423UT the Instant of the 8.1 Kuril Islands Earthquake**

The blue, green and red dots on the graphic indicate the respective positions of the lunar, galactic center and solar subpoints. The black dot is the epicenter of the earthquake. The colored map insets show the greater TGA regions near PNG and western South America. The red bounded area near PNG is the PNGTGA.

**Fig 2 Region near Papua New Guinea – Center 149E 4S**

A matter that arose during the collaboration was the interaction of the iasobergs with the TGA on the westcoast of South America (WSA). Both of these greater TGA regions had been included in the initial development of the Iasoberg Model, but only the PNGTGA area had been used in the analysis of the earthquakes.

Gill suggested that it might be useful to define a WSATGA area in similar manner to the PNGTGA. The WSATGA was defined using the boundary of a small tectonic plate on the west coast of South America which lies at the center of a large TGA on the west coast. The proposed WSATGA is centered at 69W 18S and shown in Fig 3.

**Fig 3 Region near West Coast of South America – Centered 69W 18S**

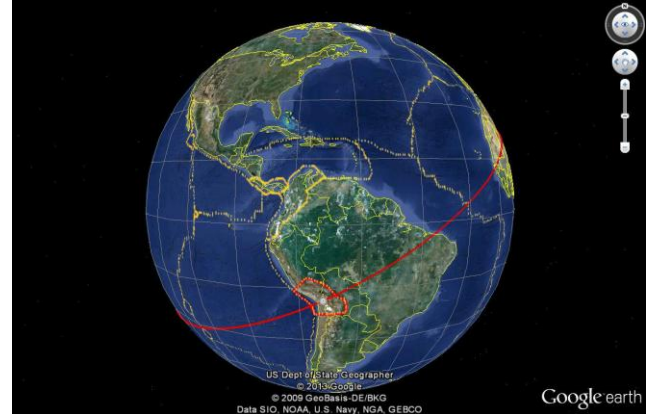


Out of interest, Gill also suggested that a ‘needle’ be passed through the centers of both TGAs and displayed as a great circle on the Earth. That suggestion resulted in the two TGA centers and the center of the Earth defining a plane that intersects the Earth which is fixed by these points in its orientation/position through the Earth. Hence, the plane was defined and coined the *PNGWSATGA plane* and is shown as the red line on the Earth’s surface in part in Fig 4a and b.

Fig 4a PNGWSATGA Plane Eastern Hemisphere



Fig 4b PNGWSATGA Plane Western Hemisphere



## PNGWSATAGA plane and the First Observation of the Allais Effect June 30<sup>th</sup> 1954

Upon observing the configuration of the PNGWSATGA plane on the Earth’s surface, Oberg combined the spatial data from a previous analysis of the celestial positions (solar - red dot and lunar – blue dot subpoints<sup>4</sup>) during the June 30<sup>th</sup> 1954 eclipse with those of the PNGWSATGA plane. It was observed that the PNGWSATGA plane intersected the solar/lunar conjunct subpoints<sup>5</sup> on the Earth’s surface during the eclipse. And the instant where the azimuth of the pendulum in Allais’ experiment began to change rapidly, i.e. ~1120UT, was where the subpoints intersected the plane. The configuration of the PNGWSATGA plane, subpoints and Allais pendulum observations are shown at 20 minute intervals between 1100UT-1240UT 19540630 (see Fig 5 a - f).

Fig 5a 1100UT PNGWSATGA Plane Solar/Lunar Subpoints

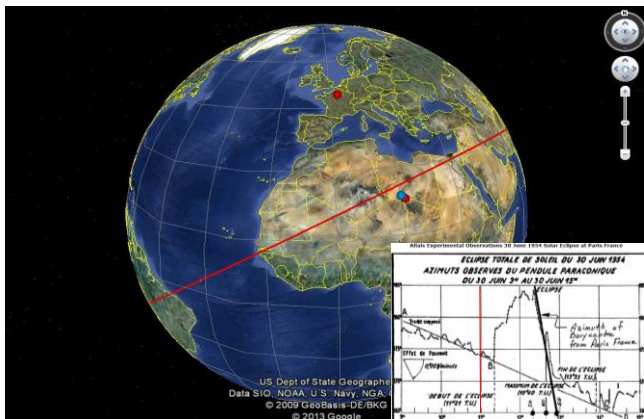


Fig 5b 1120UT PNGWSATGA Plane Solar/Lunar Subpoints

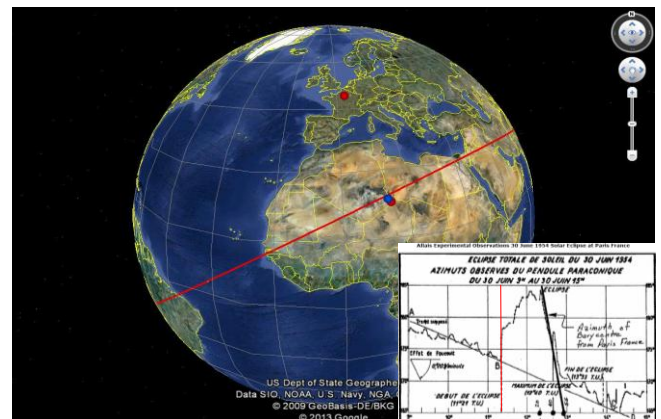


Fig 5c 1140UT PNGWSATGA Plane Solar/Lunar Subpoints

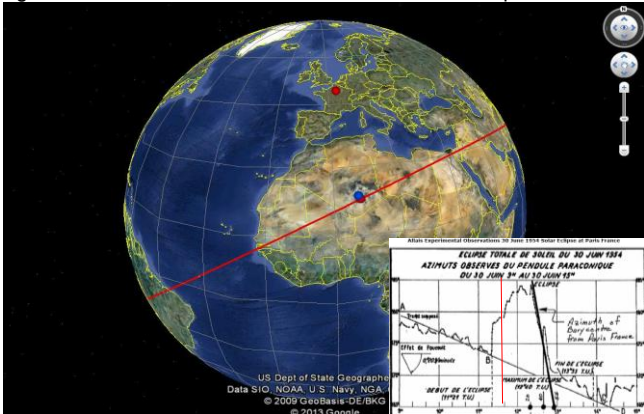


Fig 5d 1200UT PNGWSATGA Plane Solar/Lunar Subpoints

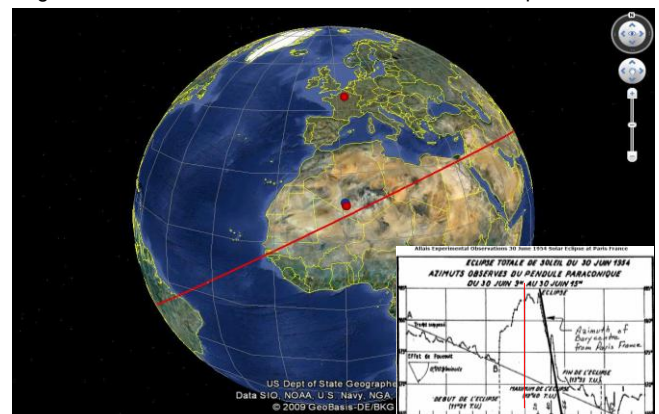


Fig 5e 1220UT PNGWSATGA Plane Solar/Lunar Subpoints

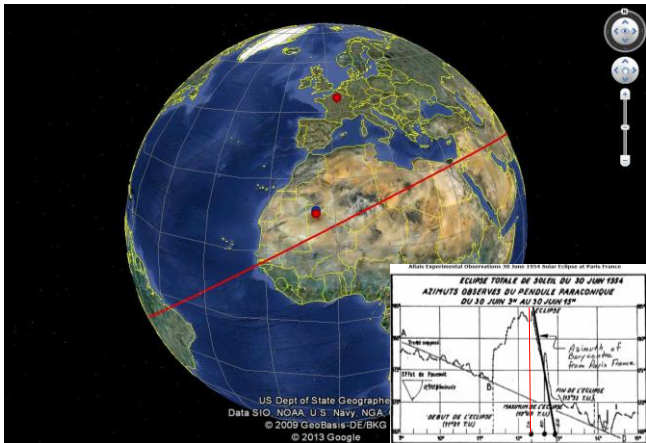
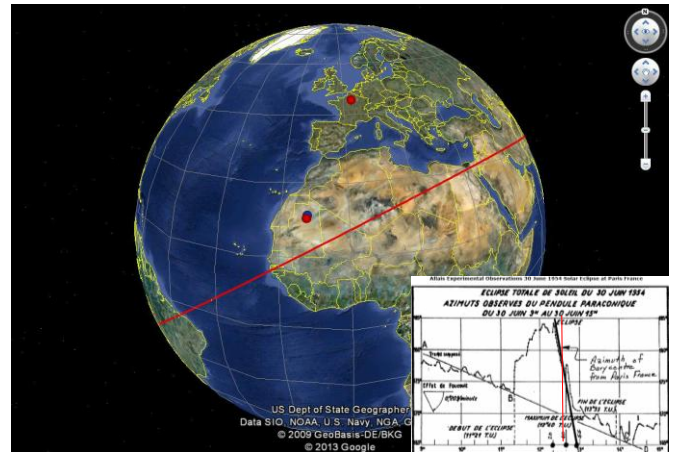


Fig 5f 1240UT PNGWSATGA Plane Solar/Lunar Subpoints



## Findings and Observations

In this brief note we have discussed the development of and shown that the centers of the defined TGAs and the Earth define a plane of interest that intersects the Earth. We have also demonstrated that the surface/edge of the PNGWSATGA plane intersects the solar and lunar subpoints during the 30<sup>th</sup> June 1954 solar eclipse. And that the intersection of the subpoints and the plane, occurring at ~ 1120UT, is very near the instant that the azimuth of the pendulum in the Allais experiment began to change rapidly. Further, the position and motion of the plane with respect to the subpoints for the period 1100-1240UT are consistent with Allais' observations.

## Conclusion

At the time of the suggestion by Gill that a 'needle' be passed through the TGAs, even though both authors are spatial practitioners, the location/configuration of the plane on the Earth's surface as defined by the centers of the 2 TGAs and the Earth was unknown. And on first observing the great circle describing the intersection of the plane with the surface of the Earth, there were no obvious correlations between the edge of the plane and the Earth's geography or tectonic boundaries.

We offer no explanation of what physical feature, if any, the plane may represent. Or why the PNGWSA plane when interacting with the gravitational fields associated with the solar and lunar subpoints might provide a dynamic influence capable of significantly changing the azimuth of a 7kg swinging pendulum at a distance of some thousands of kilometers.

If, in fact, there is no scientific substance to the proposed PNGWSATGA plane, it is a remarkable coincidence that this plane (developed from an analysis of seismic activity and the elements of a hypothetical model of the AE) intersected the solar and lunar subpoint configuration during the eclipse in the manner described in this note. And further, that the relative motion of the plane and subpoints demonstrate a strong correlation with the observations of the Allais experiment.

Should further work be conducted where the PNGWSATGA plane is incorporated in an analysis, it can be taken that, at the time of this writing, that the 3 points that determine it, are the centers of the TGAs as defined above and the center of the Earth.

The 1954 eclipse is the start of the AE story which remains unexplained by conventional gravitational theory. It is the contention of the authors that any work that may shed some light on the cause or influences related to the cause of the AE should be considered by those involved in the investigation of this phenomenon.

## Addendum

As a point of interest, the analysis of the 211 earthquakes found that ~ 25% of earthquakes occurred very near the time of an intersection (PNGTGA x iasoberg mid-band, some  $\Delta t$ s within a few minutes). A statistical analysis of the results of the study has not been conducted.

## Acknowledgements

I want to acknowledge all the members of the Allais Effect team who have contributed to my understanding of this phenomenon. Tony Gill my late night internet collaborator in Darwin Australia. William and Larry Oberg who have been of great assistance in providing software and hardware support for this work. Also many other persons who have assisted me with support of various kinds during my work on this project. Alison Oberg, my daughter, who is left with the task of transforming/editing my engineering drafts into scientific prose. It should be noted that the software packages Google Earth, Global Mapper and GPS Visualizer have made the observations and results shown in this note possible.

-- -- --

## References

<sup>1</sup> The term *iasoberg* was coined as the generic descriptor for the regions of the Iasoberg Model that indicate where the AE is located on the surface of the Earth. The Iasoberg Model is configured with 6 x 3 band Iasobergs. The red bands are linked to a solar/lunar celestial configuration and similarly the green bands are linked to a galactic center/lunar configuration.

<sup>2</sup> E Oberg (2007), "[Location of the Allais' Effect on the Earth's Surface: A Hypothetical Field Model](http://www.iasoberg.com)" – Note 2, [www.iasoberg.com](http://www.iasoberg.com)

<sup>3</sup> E Oberg (2008), "[Note 4: Severe Wind Events Correlate with the Iasoberg Model Supporting the Argument for the Existence of the Allais Effect](http://www.iasoberg.com)" [www.iasoberg.com](http://www.iasoberg.com)

<sup>4</sup> The spatial data has been displayed on Google Earth and generated by GPS Visualiser and the Iasoberg Model algorithms.

<sup>5</sup> This reference has been included to indicate the accuracy of the various celestial data generated by the Iasoberg Model algorithms. The data from the United States Naval Observatory (USNO) <http://aa.usno.navy.mil/data/docs/celestable.php> is shown below as well as the Iasoberg Model data.

A typical table of USNO data shown below provides both almanac data and altitude corrections for each celestial body that is above the horizon at the place and time specified. Sea-level observations are assumed. The almanac data consist of Greenwich hour angle (GHA), declination (Dec), computed altitude (Hc), and computed azimuth (Zn). The altitude corrections consist of atmospheric refraction (Refr), semidiameter (SD), parallax in altitude (PA), and the sum Refr+SD+PA. The SD and PA values are, of course, non-zero only for solar system objects.

**Table 1 Astronomical Data from USNO and Iasoberg Model Algorithm**

19540630 1120UT USNO Data								
Almanac Data					Altitude Corrections			
Object	GHA	Dec	Hc	Zn	Refr	SD	PA	Sum
SUN	349 08.8	N23 11.8	+28 57.3	82.9	-1.8	15.7	0.1	14.1
MOON	349 45.4	N23 53.7	+29 48.6	82.6	-1.8	16.2	51.7	66.1

19540630 1120UT Iasoberg Model Algorithm Data					
Object	GHA	Dec	RA	Dec	Description
SUN	349 08.4	N23 11.7	10.86023	23.19558	ZLS – Solar subpoint RA Dec
MOON	349 44.8	N23 53.7	10.25290	23.89560	ZL – Lunar subpoint RA Dec