

Severe Weather Events
Linked to
Orbital Relationships

The Hypersensitive Solar System

*"We Just Might Live in a Hypersensitive
Solar System..."*

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A study of possible effects consequential to the movement
of Earth and its neighbors through the space plasma
environment.

On numerous occasions during an eight year period of observation of the celestial neighborhood of the earth, from 1998 to 2006, while its neighbors (Mars, Venus and the moon) passed in proximity during their orbits they also came into close alignment at varying angles to the outbound solar flow and the [heliospheric current system](#). At the time of these passages severe terrestrial weather events occurred. These observations exposed a puzzle that may point to potential influence to terrestrial weather from orbital relationships. This possibility deserves close evaluation and thoughtful consideration from the space-plasma perspective.

During this period:

- *Several eclipses occurred.*
- *A Venus transit occurred, absent since 1882 and due again in 2012.*
- *The distance between us and our orbiting neighbor, Mars, was twice closed in a manner that hadn't happened in 400 years.*
- *This period also included a solar maximum and a minimum and for the inhabitants of this planet it was a time of notable severe weather events.*

Some of what we experienced seemed routine but the exceptions hinted that there may be more to the routine than is commonly portrayed. The exceptional events, shown in the table below, are what drew attention away from common explanations because of each storm's timing with orbital relationships. As further evaluation occurred the makings of a pattern appeared.

Most events have been explained by terrestrial mechanisms but the triggers appear unclear and limited in scope of possibilities. To better identify these triggers and possibly enhance the prediction capabilities of the Earth sciences, we may find the patterns observed over the last eight years just cause to take in a larger chunk of the sky to better anticipate natural threats created through violent weather.

For the purpose of this presentation, only a portion of the events will be mentioned, mostly storms of the western hemisphere.

Further investigation is ongoing and will include a global perspective.

The type of events outlined will be:

- *Hurricanes occurring in conjunction with repeated lunar orbital relationships and cycle coincident.*
- *Hurricanes / typhoons / cyclones of significant severity or the timing of which is curious to other orbital relationships.*
- *Tornadoes occurring in unusual locations and at times of orbital alignments, such as eclipses and transits.*

All these may reveal the reality of periodic electrical interaction between Earth's atmosphere and the plasma environment of space under the influence of the Moon and our neighboring planets.

The first pattern, associated with hurricanes, involves the movement of the Moon in the vicinity of conjunction with the Earth and Sun. Both the new moon and the full moon phase see allot of hurricane activity. The least common time for the occurrence of hurricanes is around the first quarter, which is the Earth's p.m. side of the Moon's orbit however it is interesting to note tornadoes seem to covet this period. The most severe hurricanes favor the period just before the full moon and through to just after the new moon. When exceptions occur other orbital relationships seem influential.

We are faced with the mystery of why hurricanes seem to favor the last five-eighths of the lunar orbit.

Here are some details under consideration.

- *A certain celestial aspect claims this region of the Moon's orbit in the summer.*

During the (northern hemisphere) summer the Earth travels between the Sun and the galactic center. At night in the summer you see a brighter galactic plane because you are looking towards the galactic center, the energy emitted from there is considerable. In later summer the galactic plane lays in a ribbon from the southwest to the northeast. How this applies is not yet fully developed, it's just a curious detail.

- *Another aspect of celestial considerations is the lunar cycles called nodes.*
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Typically, each year has an ascending node and a descending node as the Moon crosses the ecliptic. Twice in an 18.6 year precession cycle the nodes line up with the Earth and Sun. The relevance of this will be covered in subsequent works and is mentioned here because in the fluctuation of storms from year to year there seems to be a cycle of eight years, give or take a little.

- *Another celestial aspect that occupies the full moon region is Earth's plasma tail.*

The effect on terrestrial weather by the Moon's movement into and out of Earth's tail is yet to be determined in full so this relationship is made as a note of another potentially influential aspect.

The tables below show the timing of hurricanes with reference to the lunar phases, full and new moon.

2001 Lunar Relationship Table

Hurricane name, size and location	Date and duration from > to	Lunar timing with reference to phase	Approximate path
Allison (TS) S. Texas > N.E. u.s.	June 5 > 18, 2001 X	Full moon -2 > +11 (fm 6 > 8)	Northeast
Barry (TS) East gulf > W. Fla. > Mo.	August 2 > 8	Full moon -3 to +3 (fm 4 > 6)	West to N.W.
Chantal TS+ Caribbean sea	August 14 > 22	B4 new moon (nm 18 > 21)	West
Felix cat 3 Africa coast to E. Atlantic	Sept. 7 > 19 X	B4 new moon (nm 18 > 21)	West > North > N.E.
Iris cat 4 S. Jamaica > Belize	October 4 > 9	After full moon (fm 2 > 4)	West
Michelle cat 4 Nicaragua > N.E. u.s.	November 1 > 6, 2001 X	After full Moon (fm 10/31 > 11/3)	North to N.E.

Of the 15 named storms in 2001, 12 occurred between the full and new moon phase.

All of the most severe were among these.

This gives the impression that the lunar relationship with the earth has an influence on hurricane formation.

In some years there are more exceptions (x) than were seen in 2001 suggesting there are other factors to take into consideration.

2004 Lunar Relationship Table

Hurricane name, size and location	Date and Duration from > to	Lunar timing with reference to phase	Approximate path
Alex cat 3 East u.s.	July 31 > Aug 6, 2004	At full moon (X) (fm 7/31 > 8/2)	Northeast
Charley cat 4 Caribbean > N.E u.s.	August 9 > 15 X	B4 new moon (nm 14 > 17)	North then N.E.
Frances cat 4 East Atlantic > Florida and E. u.s.	August 24 > 9/6 X	B4 full moon (fm 8/29 > 9/2)	N.W. then N.E.
Ivan cat 3-5 Gulf & S.E. u.s. back to Gulf	Sept 2 > 24	After full moon (fm 8/29 > 9/2)	n.w.> n. > (n.e. > e. > s. > w.) (a loop)
Jeanne cat 3 Hispaniola to east coast u.s.	Sept 13 > 29 X	After new moon (fm 29 > 30)	N.W. > N. > N.E.
Karl cat 4 east atlntc to N. cntrl atlntc	Sept. 16 > 24, 2004 X	After new moon (nm 14 > 17)	N.N.W > N. > N.E.

The examples marked X were chosen because they appear to show a pattern of storm direction associated with post-new-moon timing (PM stationing).

With a few exceptions they tend to track
to the north and northeast for a large portion of their existence.

Ivan shows an odd loop of directional change.

The storms occurring during the Moon's AM stationing appear to travel more westerly.

73% of this years storms occurred during the Moon's AM stationing +/- a few days.

The details of this table help significantly to support this paper's proposition.

2005 Lunar Relationship Table

Hurricane name, size and location	Date and duration from > to	Lunar timing with reference to phase	Approximate path
Cindy Gulf of Mexico	June 29 > 7/5, 2005	B4 new moon (nm 7/6 > 9)	N.W > N. > N.E.
Dennis cat 3 east gulf to Alabama	July 9 > 10 X	After new moon (nm 6 > 9)	North in East gulf
Emily to cat 5 S. Gulf to n.e. Mexico	July 11 > 21	B4 full (-10days) (fm 21 > 23)	West NW
Katrina cat 5 Gulf of Mexico	Aug. 18 > 29	Full moon (-3 to +8) (fm 19 > 22)	East to West then North
Ophelia less than 3 east coast of u.s.	Sept 6 > 18 X	New +2 to +12 nm 2 > 5	North East path
Rita cat 4 (+/-) Southern Gulf to Texas	September 18 > 28	Full moon -2 to +9 (fm)19 > 22)	East to West
Wilma cat 1-5 S. Gulf to East coast of u.s.	Oct 15 > 25, 2005	Full -3 to +6 (fm 17 > 20) partial lunar eclipse	N.W then N.E.
Of the 27 named storms in 2005, only 8 occurred in the first lunar quarter region. 8 directly overlapped the new moon, 2 of them were the most severe.		The other 4 of the most severe and 7 of the total occurred as the new moon passed through the Earth's plasma tail.	

On a number of occasions tornadoes occurred with peculiar timing to orbital relationships.

From the standpoint of local observers of a rare tornado (June 9th 2004 when a hurricane was nearby) that ripped through a region in the Philippines their surprise might be an expected emotion but imagine their thoughts if they were to take into account the celestial activity of the planet Venus passing in transit of the Sun a day prior. We might pass this timing off as irrelevant but when more detail is added to the story the probability of a correlation increases a bit... One detail is the existence of an electromagnetic tail that emanates from Venus and comes in close proximity to Earth's plasma sphere. The tail, a Birkeland current, was revealed by the SOHO satellite and if considered along the lines of the plasma environment of space it introduces some interesting possibilities.

Another tornado with unusual timing occurred in Salt Lake City, August 11 1999, in close timing with an eclipse the totality of which was viewed throughout much of the eastern hemisphere. As the Earth rotated the western hemisphere towards the Sun hours later, here in the west, the early afternoon tornado occurred in Utah, of all places... very curious... For the sake of discussion, Venus made a passage on this side of the Sun 7 days later. At this point the Earth and Moon had set themselves between Mars and Jupiter. Strangely enough, a large earthquake occurred in Turkey on Aug 17, 1999.

Many other examples exist and may be developed further if a pattern continues to present itself.

Mars dust storms.

During June of 2001 events on Mars overlapped the close approach of Earth to a near alignment on the 14th. Over the next two weeks, on Mars, a major dust storm developed engulfing Mars in a planet wide dust storm for months to follow. On Earth significant lightning storms occurred.

The link below shows the entire sequence of Mars' dust storm.

http://science.nasa.gov/headlines/y2001/ast16jul_1.htm

One notable characteristic of an early phase in the development of the Martian dust storm was two adjacent circular areas on the Earth facing side, around the 27th of June. This happened 13 days after the near alignment and close approach with Earth. Now wouldn't that be handy... hitch a ride on the solar flow on the 14th and arrive at Mars 13 days later? Seriously though, might the Earth have left an imprint in the solar current that showed up as a disturbance to Mars' environment once it arrived at Mars? In subsequent days as many as six apparent focal points developed on Mars. This is important because Mercury, Earth, Venus, Jupiter and Saturn were all grouped in a broad line to one side of the Sun during that same time. Very curious indeed, particularly because one of the patterns seen in terrestrial hurricanes involves what might amount to influence from the formation of a (theoretical) virtual conductor created by aligned planets at right angles to the solar current. At some point along the line created by these groupings the line presents itself at right angles to the solar flow, with proposed inductive consequences. If these focal points on Mars are any indication of the planets, grouped on the same side of the Sun, we might have further support for the pattern seen in the timing of some hurricanes.

The table below describes some of these instances:

Planetary Orientation Table 2005 (part 1)
Hypothetical virtual conductor from right angular alignments to the solar current

Date of Storm	Storm type and name size by Category Region of influence	Orbital relationships expressed in order of alignment by the first two letters of the orbiting body's name	Lunar Aspects by phase or eclipse	Alignment relationship expressed w/reference to solar current in degrees and +/- line of sight position (+ = North)	Additional considerations to mention
June 29, 2005 >July 5th 1st of 2 storms	Hurricane Cindy Category 1 Gulf of Mexico	(Ju Ea Mo Ma) Align 6/29, By July 5th moon entering new moon phase, [Ea Mo Me Ve] align by 7/9 see storm 2	Last 1/4 to early part of new moon	The alignment that precedes these two storms is almost at right angle to the solar current.	This example is a bit out of the ordinary in that two storms occur around the new moon period, one on either side.
July 6 > 10 2nd of two	Hurricane Dennis category 3 East gulf through Alabama	[Ea Mo Me Ve]July 9 after new moon, 6th>9th Dennis churned up landfall on 7th, by 10th dissipated	New moon and emerging days there after	This alignment is a shallow angle off the solar current this follows the pattern of post new moon events.	As emergence occurs on the 9th the movement into immediate alignment with Mercury and Venus suggests an influence
August 18 > 29 2005	Hurricane Katrina Category 5 S. Fla thru Louisiana	Develops 18th [Mo Ea Me Sa], TD aft full moon, TS 23rd [Mo Ea Ve Ju], Hrcn on 25th [Ea Mo Ma], cat5 on 27th as moon passes Galactic plane	Full moon August 19>22 thru last Qtr.	Alignments at 70deg_ Moon near ecliptic as where other planets. Autumnal equinox approaching.	16 16

Planetary Orientation Table 2005 (part 2)
Hypothetical virtual conductor from right angular alignments to the solar current

Date of Storm	Storm type and name size by Category Region of influence	Orbital relationships expressed in order of alignment by the first two letters of the orbiting body's name	Lunar Aspects by phase or eclipse	Alignment relationship expressed w/reference to solar current in degrees and +/- line of sight position (+ = North)	Additional considerations to mention
September 18 > 25 2005	Hurricane Rita Category 4 +/- Sthrn gulf North to Texas	Develops 9/18 [Mo Ea Su], category 2 9/20 [Mo Ea Ju] rapid build 9/21 [Ma Mo Ea Ve] Cat.5 9/22 [Ea Mo Ma] cat 3 9/23 > 27 landfall (in gal plane) 9/28 [Ea Mo Sa]	Post full moon fm 9/19>21	near lunar eclipse on 18th Mo Ea Ju @ [<] 90deg. on 20th Ea Mo Ma nearly 90 deg. on 22nd	Here again we see movement of storm being drawn to west as earth rotates past the Moon & morning-side tug
October 15 > 25 2005	Hurricane Wilma To Category 5 S.Gulf > N.E. > east coast	Developed 17th. [by 1600ut Mo Ea Su] partial eclipse UT2300 18th [Mo Ea Me] storm at cat3 by 19th cat 5. 19th 0700 [Ea Mo Ma] [Mo+<9deg] 20th eyewall replacement cycle, 21st direction change to n.e. [Mo Ea Ve] [Ea (-)< 1deg]	Partial lunar eclipse 10/17	17th [Mo Ea Su] @ 0 deg [Ea, 1deg(-)] 18-19th Mo Ea Me @ 70deg [Ea (<) 1deg(-)] 21st Mo Ea Ve (<) 1 deg [Mo (-)]	Each alignment was a near polar tangent. The direction change of the 21st took place as alignment switched from Mars on the am side to Venus on the pm side moving to the N.E. over the 24>25th.
June 5 > 13 2001	Tropical storm Allison lingered in gulf producing record rainfall in region	Developed on 5th. on 14th [Su Ea Ma] 20th [Mo Ea Ma] 21st total eclipse[1200ut] Mars dust storm began b4 23rd lasted months	fm 6 > 8 nm 20 > 23	Am 6th Mo Ea Su @0deg [Ea 1 deg +] am 7th [Mo Ea Me] @30deg [Ea 0 deg] 17th [Ea Mo Ve] @45deg [Mo (<) 1deg (-)] 21st total eclipse [1200UT]	On Mars were no less than five areas of disturbances by the 30th which included the two that formed on the 27th

Heliospheric Current Systems.

Based on what is expressed by Hannes Alfvén in his book, Cosmic Plasma Heliospheric Current Systems (p 53), we have a glimpse of the long arms of the Sun. If we can infer potential influence on the bodies that these lines intercept as they sweep across the solar system a picture of the Hypersensitive Solar System may become less obscure.

There seems to be the potential for large scale influence upon the bodies moving within the Sun's plasma environment, when they are sharing the same region of a common current line, to the extent that an effect is seen in terrestrial weather or disturbances to rarefied atmospheres.

The aspects of the Heliospheric Current System which seem practical to apply here are:

- *The two types of field lines that apparently also come in pairs, one above and one below the equatorial plane.*
- *The sharp boundary layers of the current sheet referred to as magnetic discontinuity and measured at 1-10 proton Larmor radii, estimated at 10^6 m or 621 miles.*

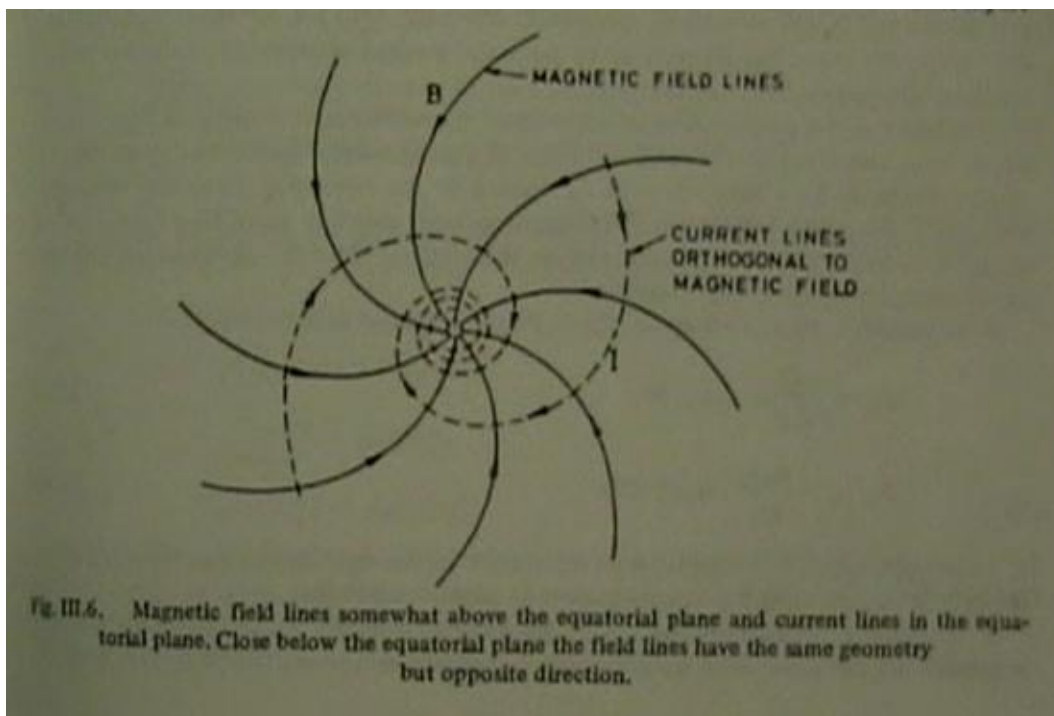
From these points it is conceivable that a planet could be straddling (or encountering) this boundary layer of magnetic discontinuity. If that would have a resultant effect on the current layer or line then we might be able to imply the next logical step.

From the Mars dust storm example we would then detach ourselves from the limitation of direct line of sight relationships drawn between bodies to favor an arc (ellipse) that the current lines of the Heliospheric Current System form.

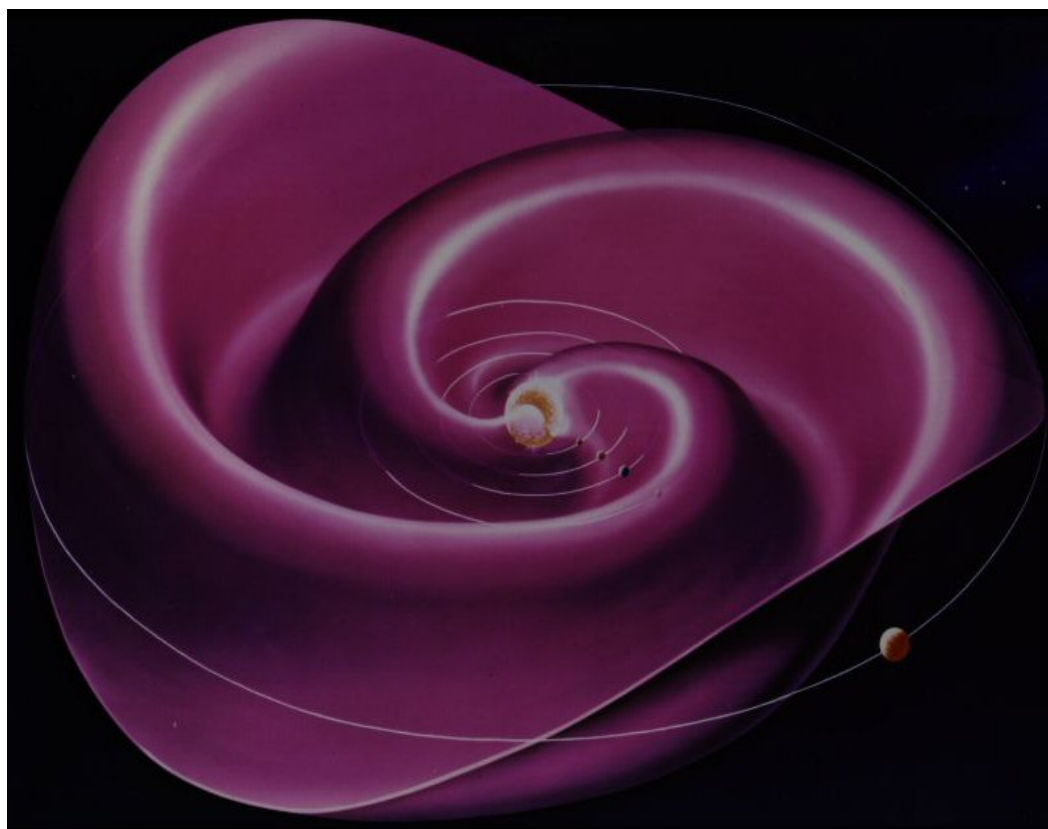
From here we might see how the grouping of the five planets to one side of the Sun, along the same portion of an elliptical current line, may transmit their presence onto the environment of Mars resulting in the five focal-points that churned up the Martian surface into planet wide dust-storms.

Can this be inferred? I hope the experts in this area of research consider the possibilities and fill in more of the details, both positive and negative.

Graphic representations to assist the reader in visualising the Heliospheric Current System.



CREDIT: Hannes Alfvén - Cosmic Plasma



CREDIT: Werner Heil, NASA artists, developed by Prof. John Wilcox.

The Heliospheric current sheet, the largest structure in the heliosphere.

At times when our neighboring planets get into very close alignment to each other and to the solar current, another effect was observed, an attenuating effect. This has been observed at the full moon phase with storms taking a break for a couple of days and then, after separation, continuing on as before. It might be figuratively described as being in the burble of a building on a windy day. As the bodies separate, move out of line, here is where I'm anticipating a disruption to the plasma environments of the bodies, like the breaking of a circuit. A glancing passage is the norm so the patterns should reflect these differences.

Summary.

- *Of the times mentioned one orbiting body seems to stand out as an influential mechanism for severe weather and other global events.*
 - *Our lunar neighbor, in its passage across the various points where it is either crossing in front of Earth or entering near to its plasma tail downstream, gives us the first point of focus for an influential character, outside terrestrial mechanisms, to be considered further from the space plasma perspective.*
 - *Once developed, many hurricanes appear to move opposite to the direction of Earth's rotation, potentially under direct influence of the Moon's station in Earth's vicinity.*
 - *Tornadoes and inland storms seem to move in the same direction as the Earth's rotation. The comparison of these details may further support the lunar influence on many hurricanes.*
 - ***We might just live in a Hypersensitive Solar System...***
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Tables will be added as further material is assembled. Each will be a work in development and open to public input in an effort to develop a global reference.

[Send info to](#)

[1988 Orbital Relationship Table](#) (incomplete)

[2007 Orbital Relationship Table](#) (incomplete)

[Discussion Forum](#)

References

Solar System Live

<http://www.fourmilab.ch/cgi-bin/Solar>

An orrery site

Solar System Simulator

<http://space.jpl.nasa.gov/>

For orbital information

Hurricane data from NOAA

<http://w1.sspc.woc.noaa.gov/exper/archive/events/searchindex.html>

Lunar Phase Calendar

http://www.observingstars.com/lunar_phase.htm

Heliospheric current sheet

http://www.plasma-universe.com/index.php/Heliospheric_current_sheet