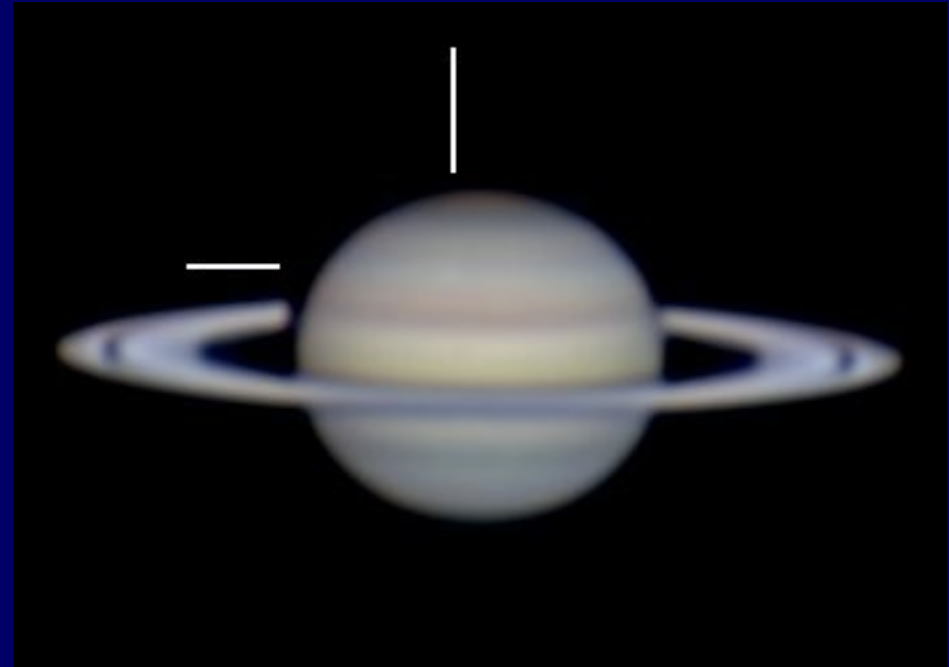


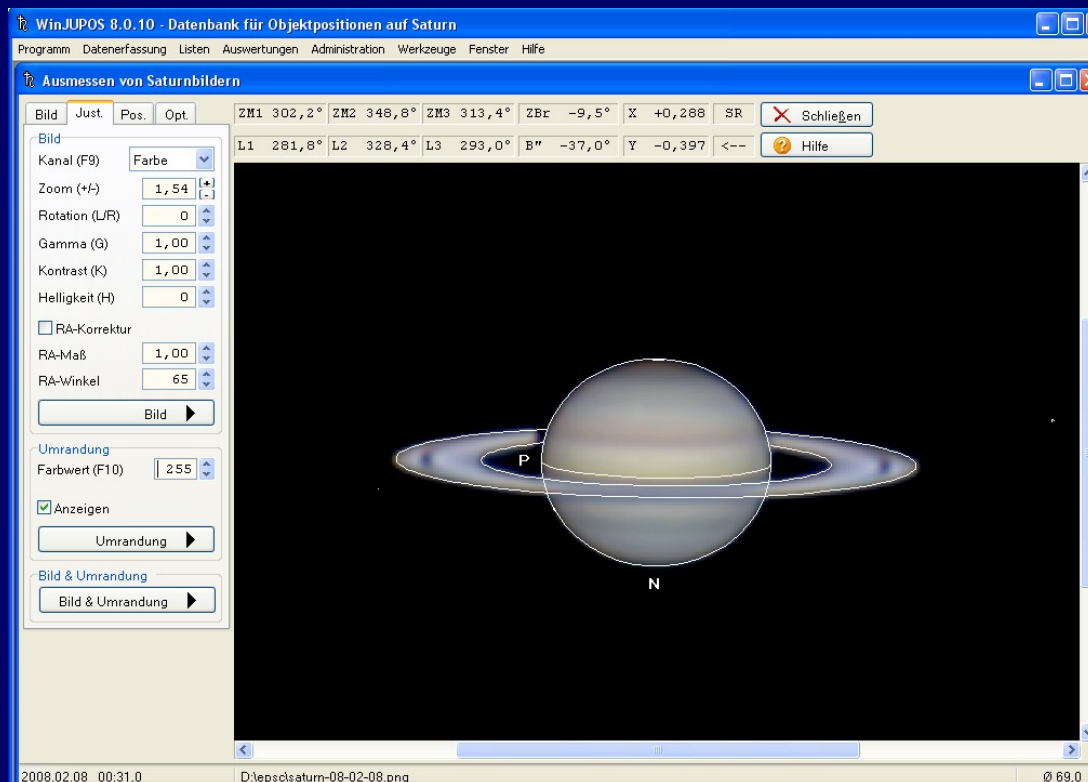
Stormy Season on Saturn?

- „Discovery“ of a bright Spot on Saturn by the author on February 8th 2008 with 8“ Newton
- E-mail to other Observers
- no follow-up observation (bad weather in Germany)
- Research at the Internet



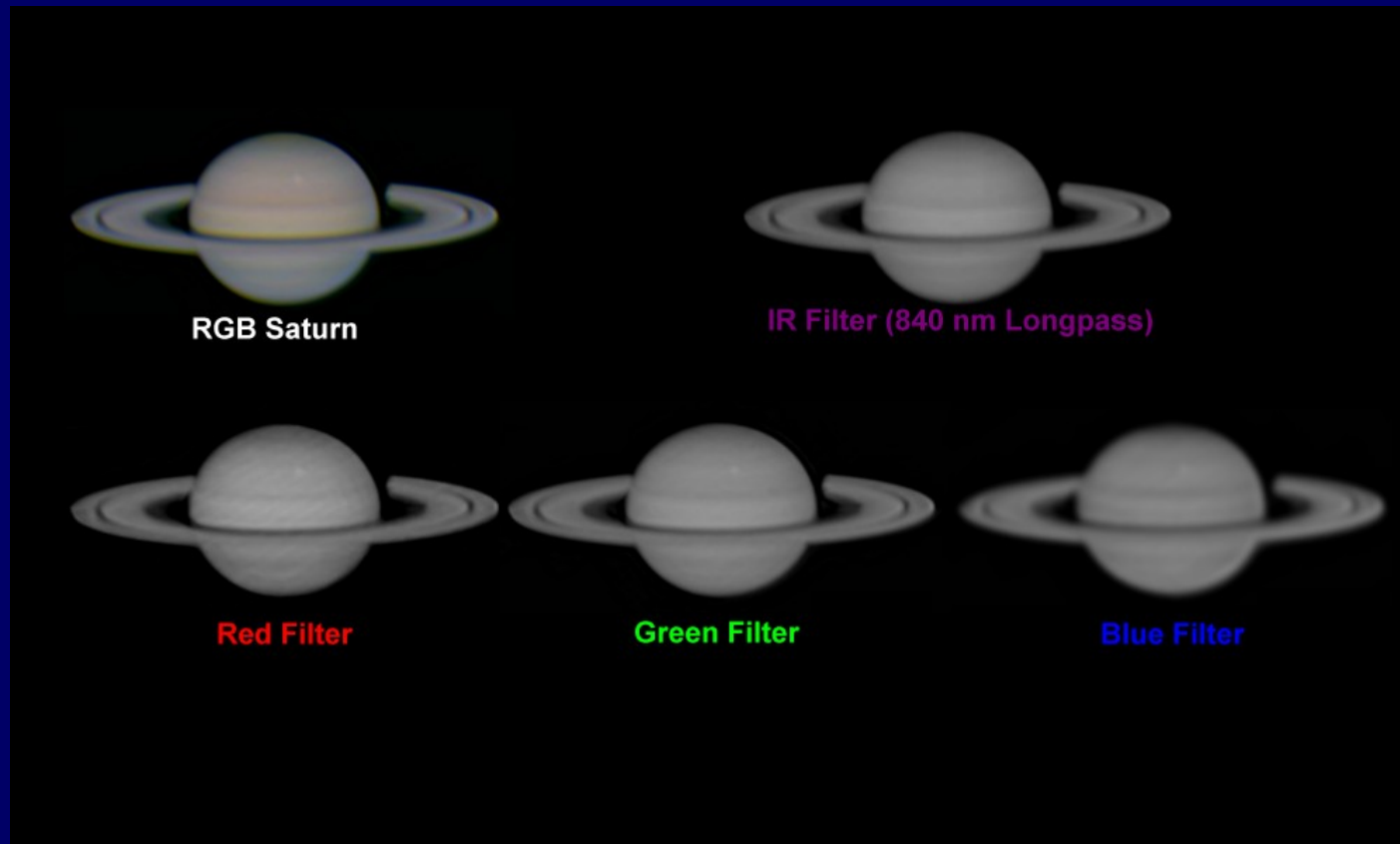
Stormy Season on Saturn?

- Measurement of position and calculation of next observation windows
- Posting of calculated data



Stormy Season on Saturn?

Analysis of visibility in different wavelength:



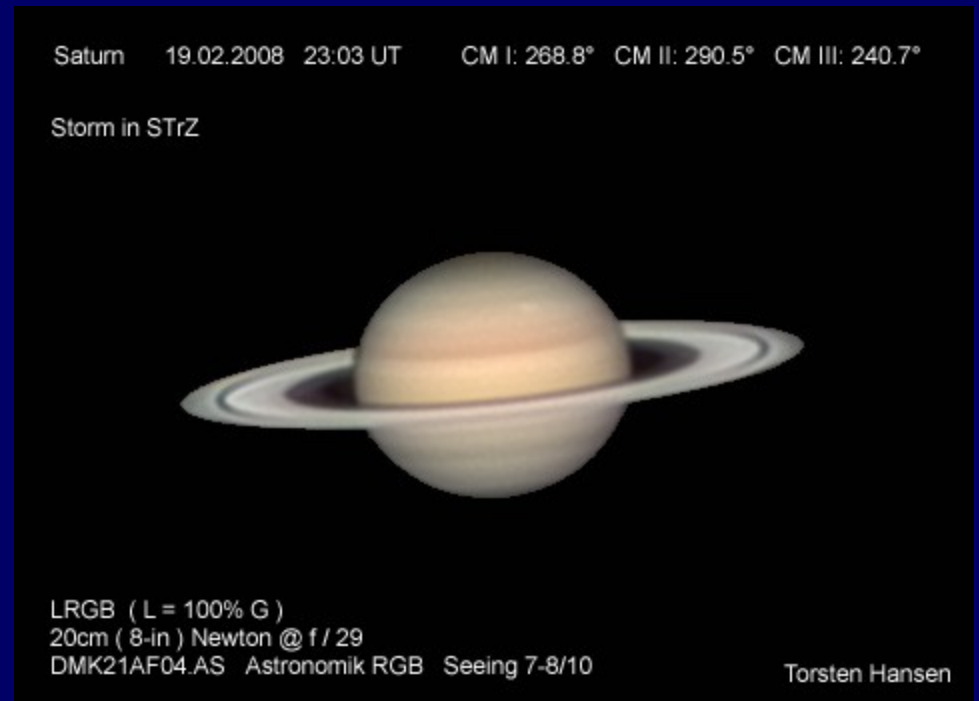
Best contrast in green...

EPSC Münster 2008, Silvia Kowolik



Stormy Season on Saturn?

- Confirmation of storm position by german Observer Torsten Hansen on February 20th

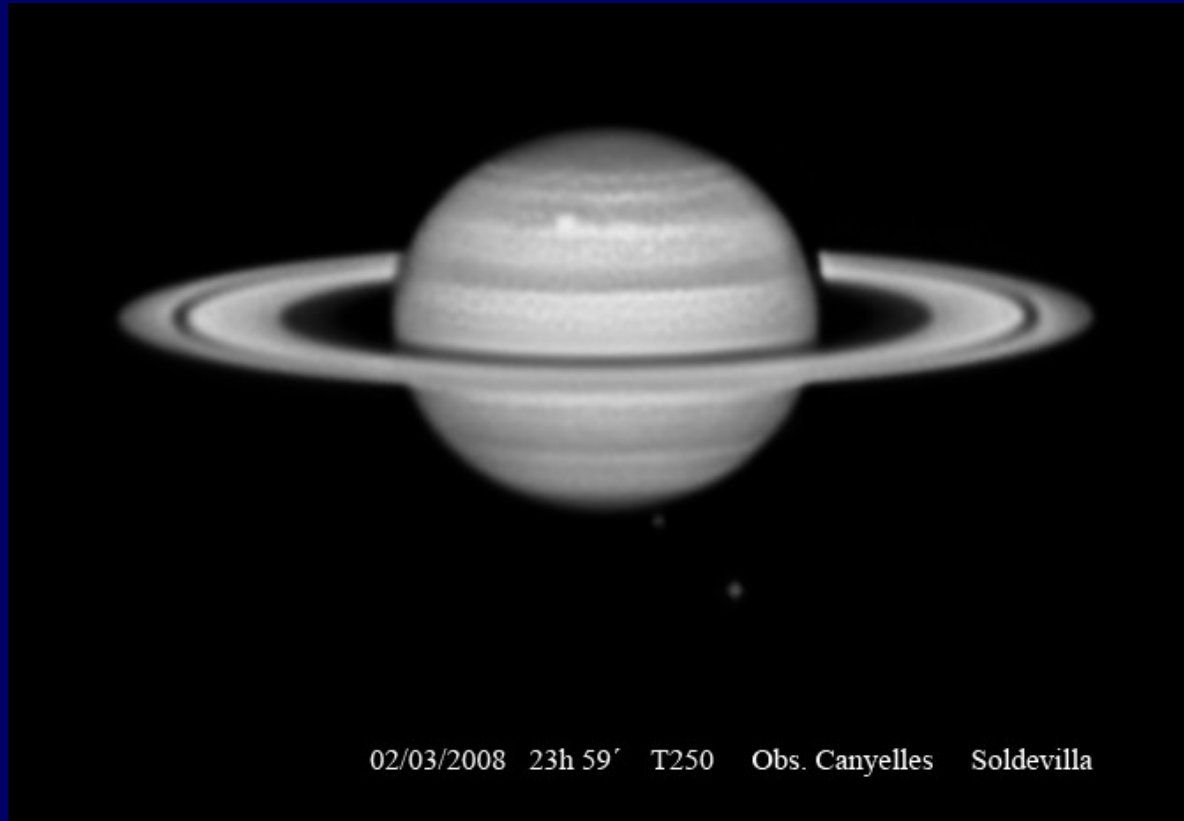


Stormy Season on Saturn?



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Second storm found in March 2008:



EPSC Münster 2008, Silvia Kowolik



Stormy Season on Saturn?



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Rosenfeld-Brittheim e.V.

Some facts found at
NASA website...

Mission News

Text Size + -

NASA Spacecraft Tracks Raging Saturn Storm

04.29.08

PASADENA, Calif. – As a powerful electrical storm rages on Saturn with lightning bolts 10,000 times more powerful than those found on Earth, the Cassini spacecraft continues its five-month watch over the dramatic events.

Scientists with NASA's Cassini-Huygens mission have been tracking the visibly bright, lightning-generating storm—the longest continually observed electrical storm ever monitored by Cassini.

Saturn's electrical storms resemble terrestrial thunderstorms, but on a much larger scale. Storms on Saturn have diameters of several thousand kilometers (thousands of miles), and radio signals produced by their lightning are thousands of times more powerful than those produced by terrestrial thunderstorms.

Color images of the storm are available at: <http://saturn.jpl.nasa.gov> and <http://www.nasa.gov/cassini> and <http://ciclops.org>.

Lightning flashes within the persistent storm produce radio waves called Saturn electrostatic discharges, which the radio and plasma wave science instrument first detected on Nov. 27, 2007. Cassini's imaging cameras monitored the position and appearance of the storm, first spotting it about a week later, on Dec. 6.

"The electrostatic radio outbursts have waxed and waned in intensity for five months now," said Georg Fischer, an associate with the radio and plasma wave science team at the University of Iowa, Iowa City. "We saw similar storms in 2004 and 2006 that each lasted for nearly a month, but this storm is longer-lived by far. And it appeared after nearly two years during which we did not detect any electrical storm activity from Saturn."



An enhanced color view of the storm on Saturn. Image credit: NASA/JPL/Space Science Institute

> [Full image and caption](#)

> [Related image](#)

> [Storm sound: This audio of a 2006 storm is similar to the current storm.](#)

Stormy Season on Saturn?

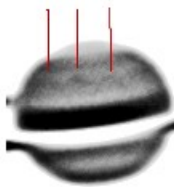


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New third storm discovered in May:

Saturn 2008 / 05 / 06
Great activity within the STrZ
(see especially the animation)

20:22 UT



NEG HC part

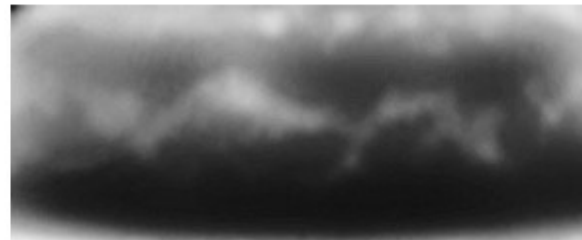


CM3=335

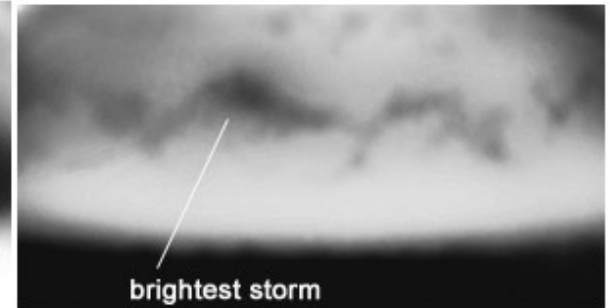
R.Vandebergh

Saturn Storm activity South Tropical Zone 30-35 degrees south latitude

2008 / 05 / 06 20:22 UT CM3= 335



Equatorial Zone (EZ)
partial enlargement
high contrast positive



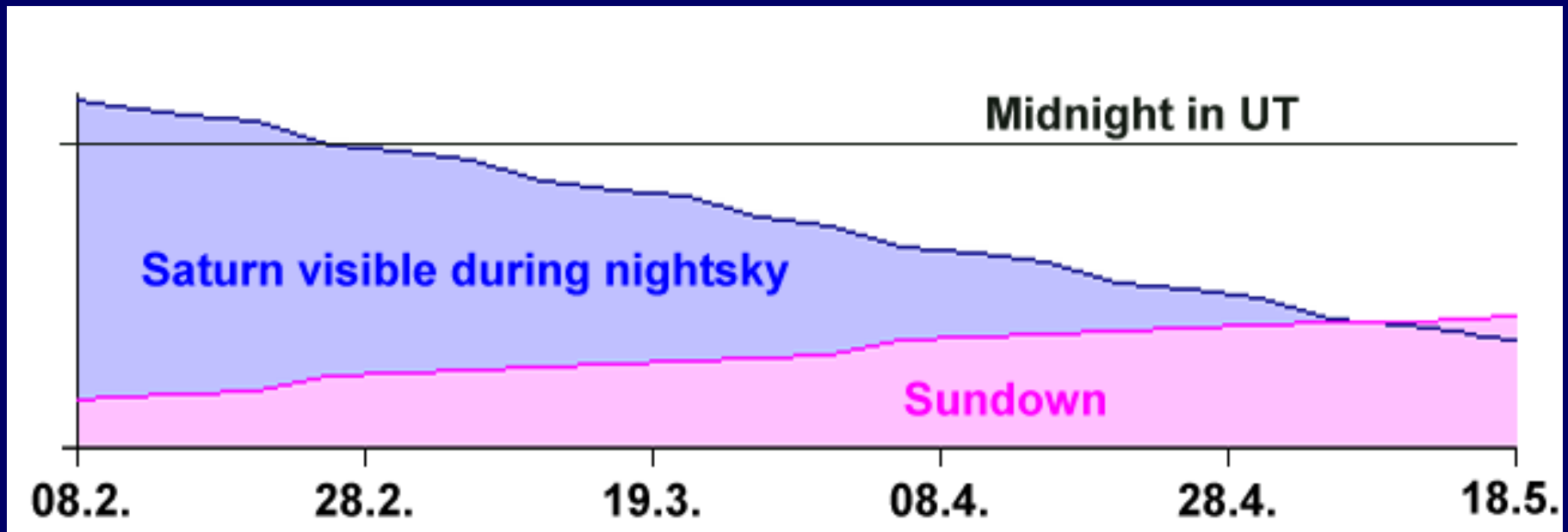
brightest storm
partial enlargement
high contrast negative

R.Vandebergh



Stormy Season on Saturn?

Saturn observing period in 2008:



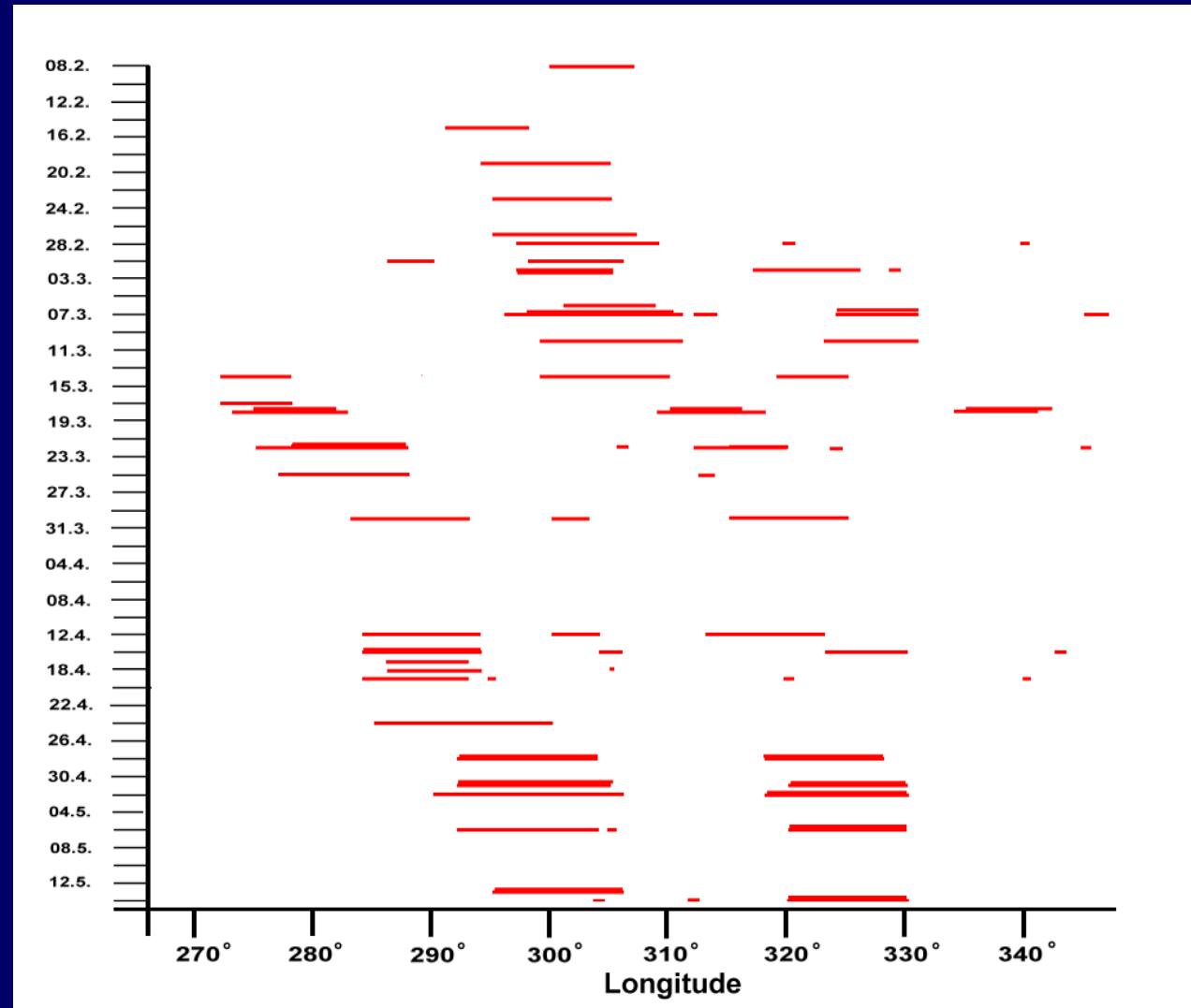
Stormy Season on Saturn?



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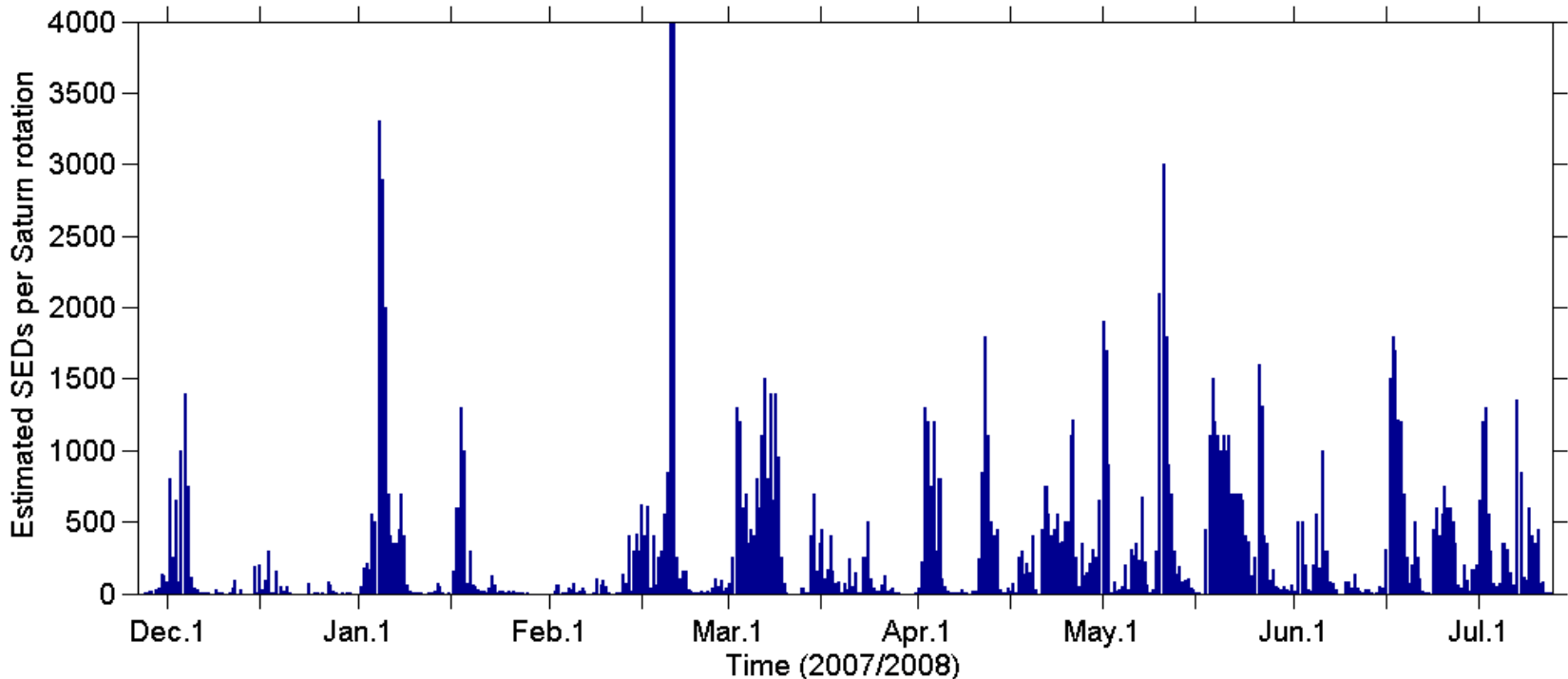
Measured drift of the storm(s):

- Analysis of 300 images from intern. Observers (e.g. ALPO Japan)
- 90 measured storm positions between February and mid May
- Drift: $0,2 - 0,4^\circ$ each day



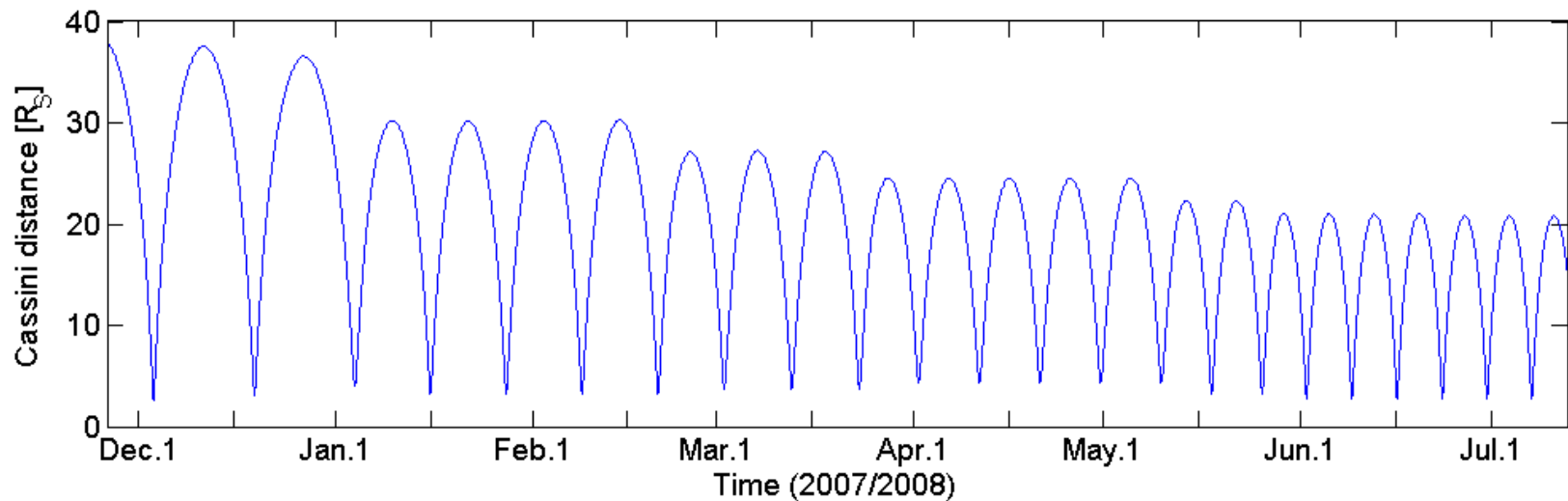
Stormy Season on Saturn?

Since May contact to Dr. Georg Fischer, Uni Iowa. Data from Cassini/RPWS (Radio and Plasma Wave Science) instrument:



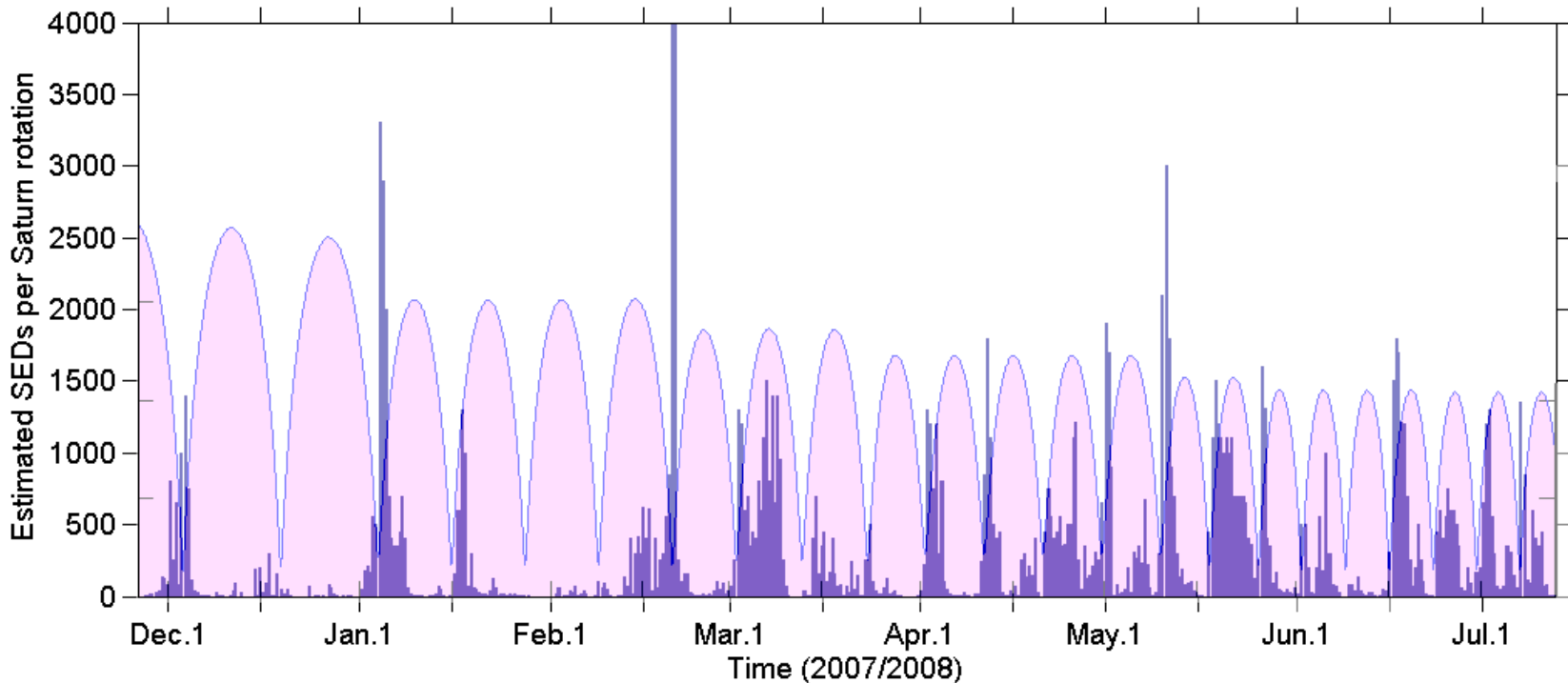
Stormy Season on Saturn?

Orbit Data of Cassini:



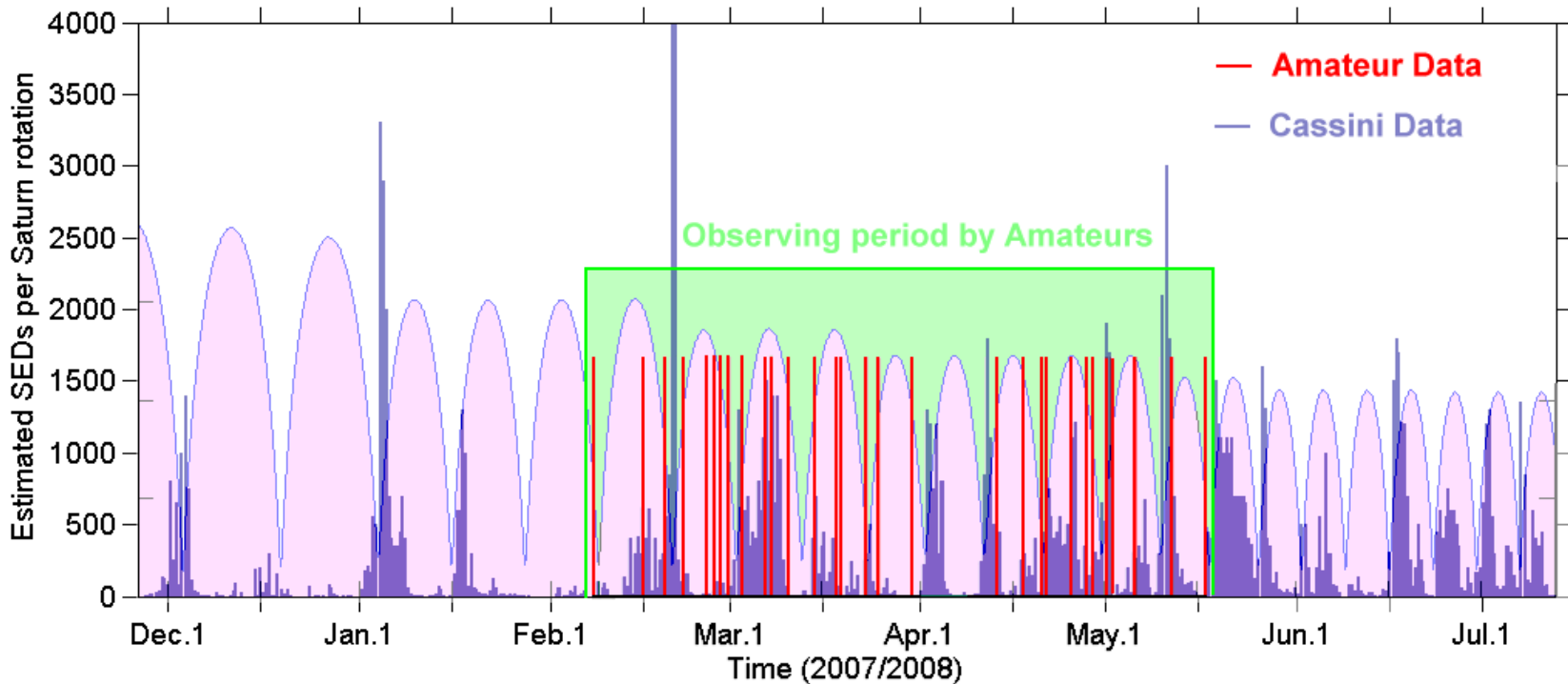
Stormy Season on Saturn?

Most detected SED's during closest distance:



Stormy Season on Saturn?

Observing period by Amateurs and comparison of results:



Stormy Season on Saturn?



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Rosenfeld-Brittheim e.V.

Any Questions?

