

PROBA2 SWT 11

PROBA2 Science Center Status Update

D.B. Seaton & M.J. West

Royal Observatory of Belgium, Brussels, Belgium

2015 June 30

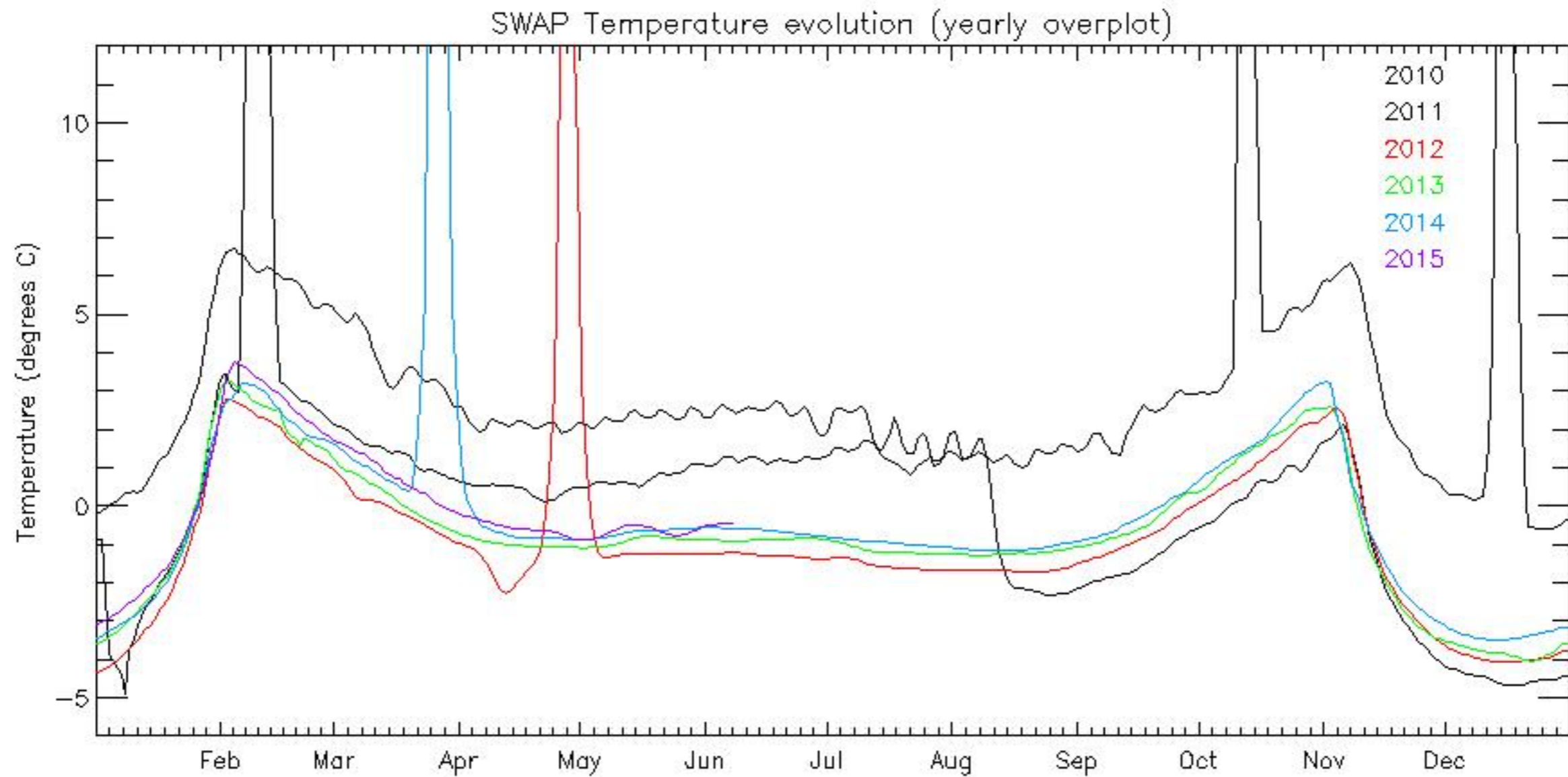
Mission Status

- Successfully co-funded by ESA SSA & SPC since July 2013
- Mission confirmed to the end of 2016, extension through 2018 contingent on continued spacecraft health (decision in late 2016)
- Transmitter 1 (TX1) Failure (More below)
- PROBA2 data serving into SSCC operations, Space Weather Forecasters, SolarSoft Latest Events...
- May 2015 On-Board Software Upgrade Successful
- Major P2SC Software Upgrade Planned - ASAP

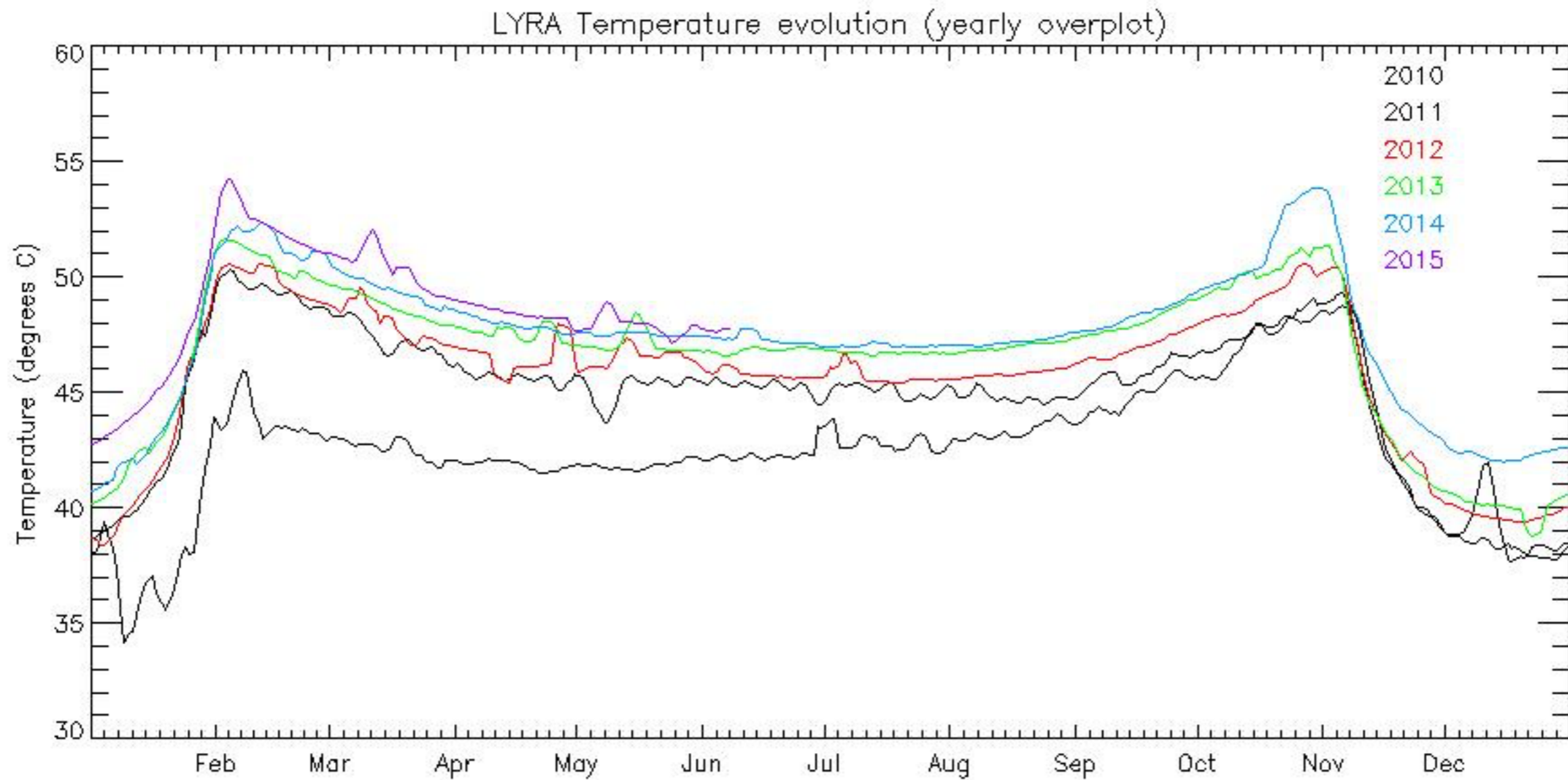
PROBA2 Vital Statistics

- 2066 Days in orbit
- Nearly 18,000 ground contacts
- More than 30,000 orbits and 1.3 billion km traveled
- 586 SWAP IOSs, 478 LYRA IOSs
- More than 1,240,000 SWAP Images (5.4 TB)
- More than 678 GB of LYRA Data

Instrument Health

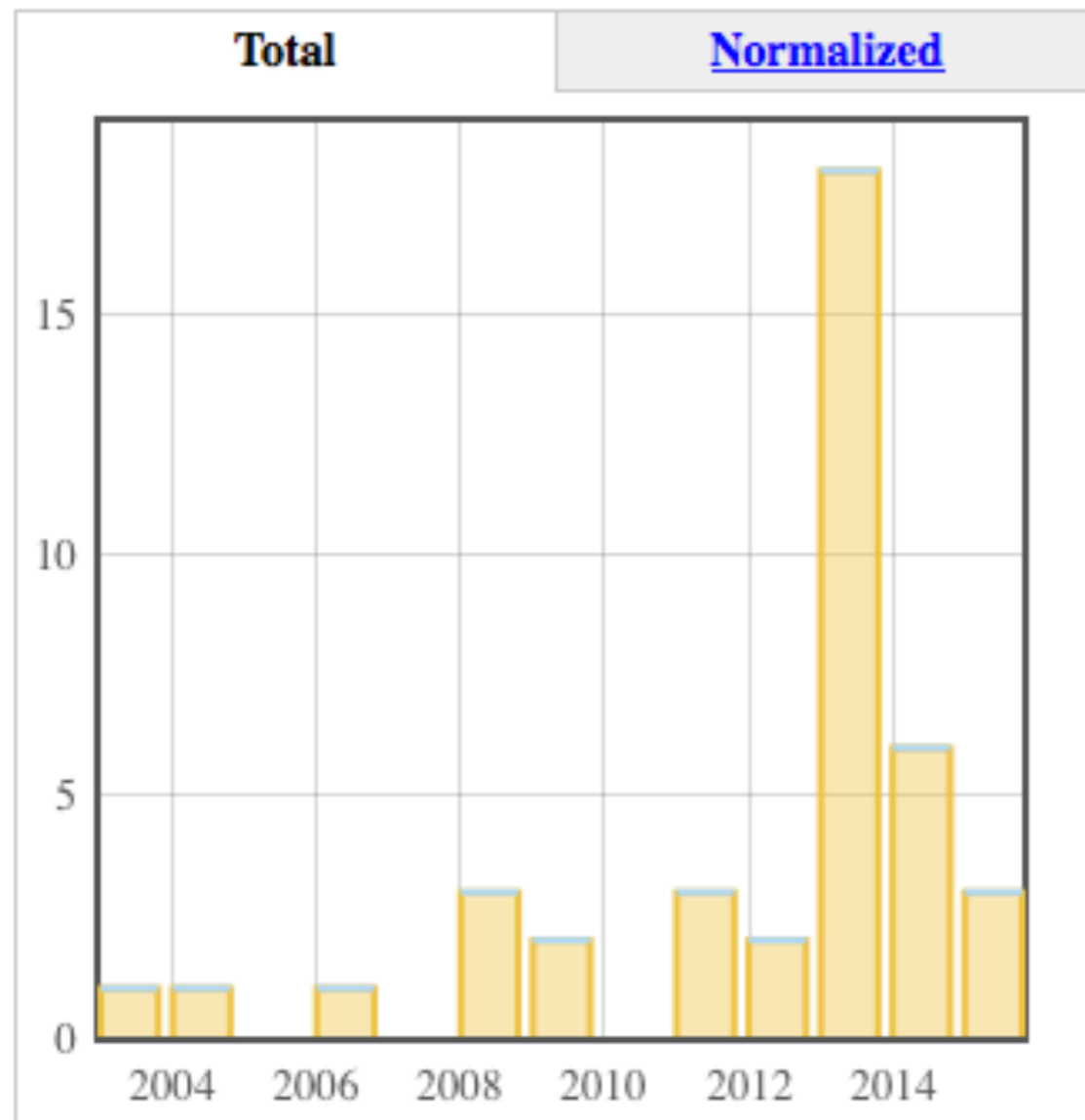


Instrument Health

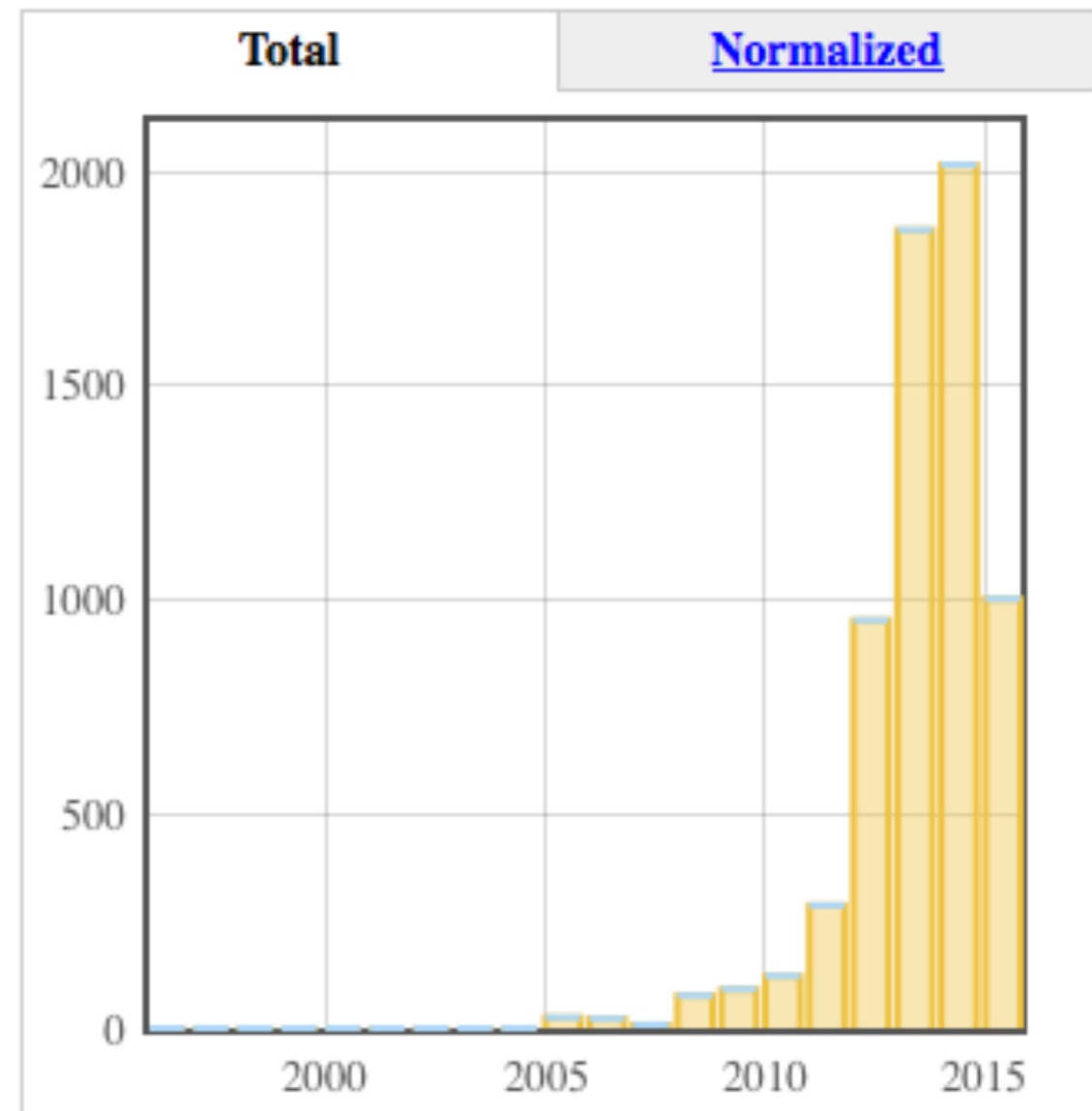


PROBA2 Publications

Publications per year

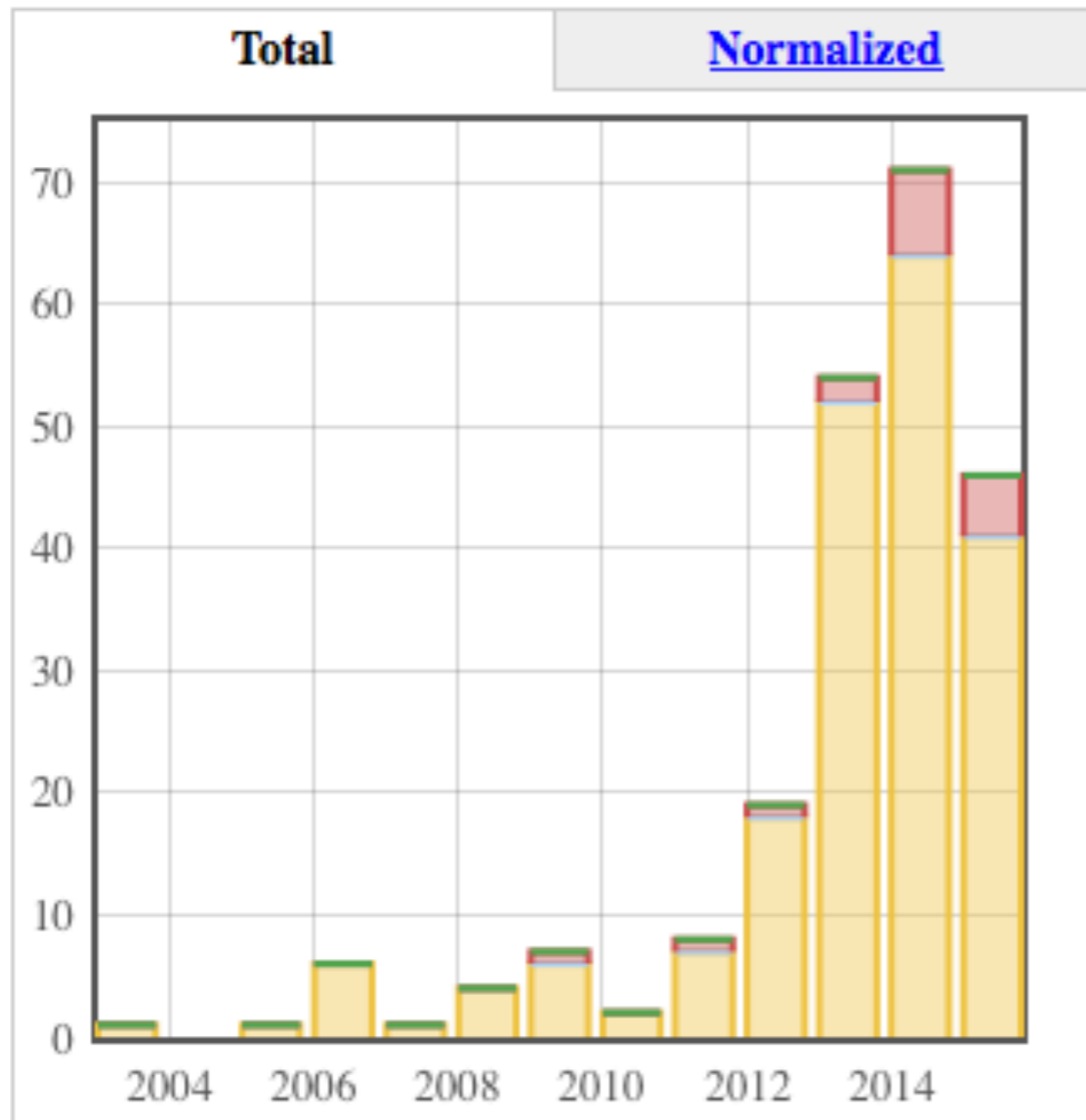


Reads per year

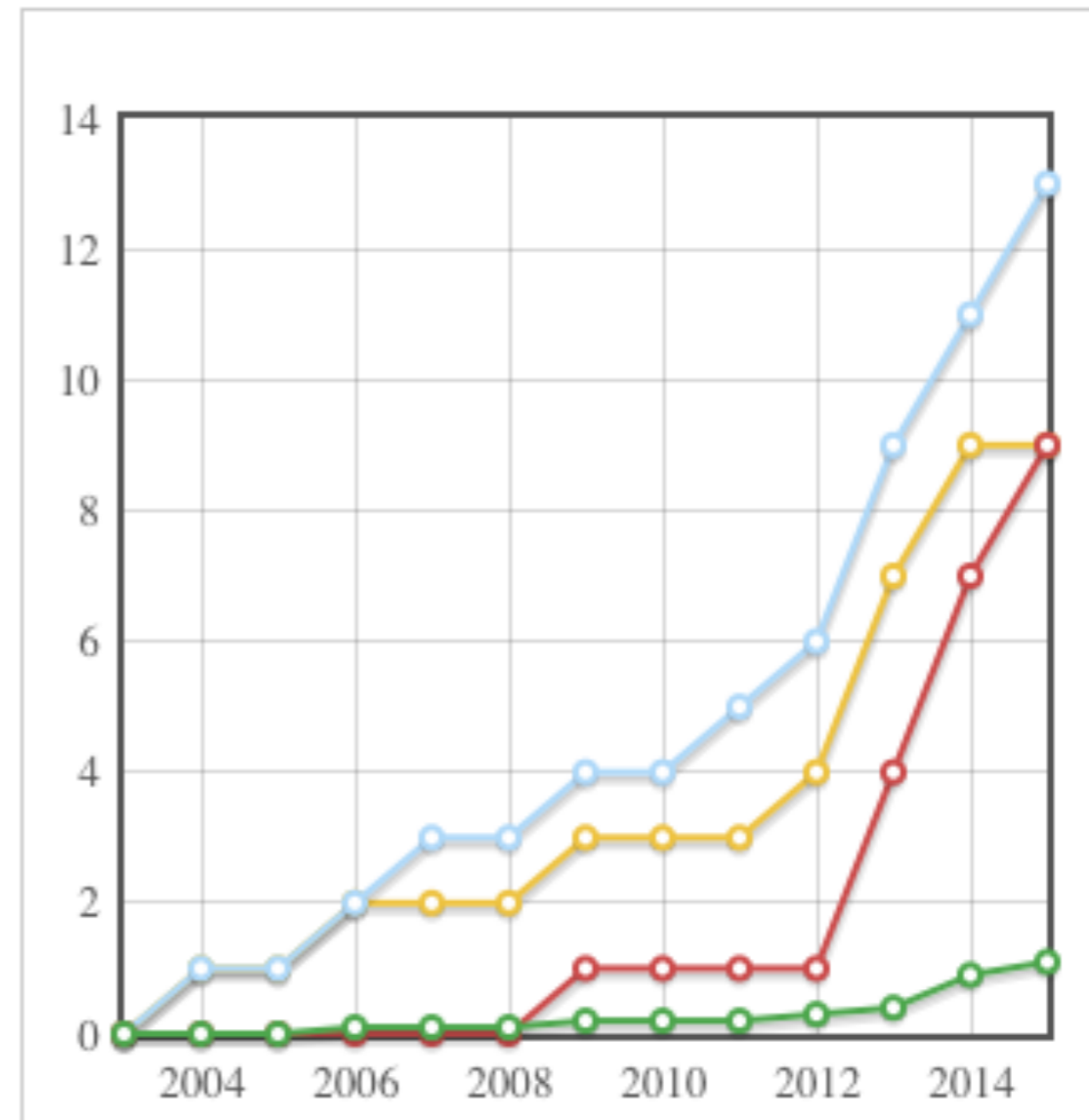


PROBA2 Publications

Citations per year



Indices



PROBA2 Publications

How can we stimulate more publications?

PROBA2 Events & Outreach

- Support for Venus Express Aerobraking - July 2014
- Spacecraft Fifth “Birthday” - November 2014
- ESA Web Article & Outreach - March 2015
- Total Solar Eclipse - March 2015
- AAS/SPD Press Release - May 2015

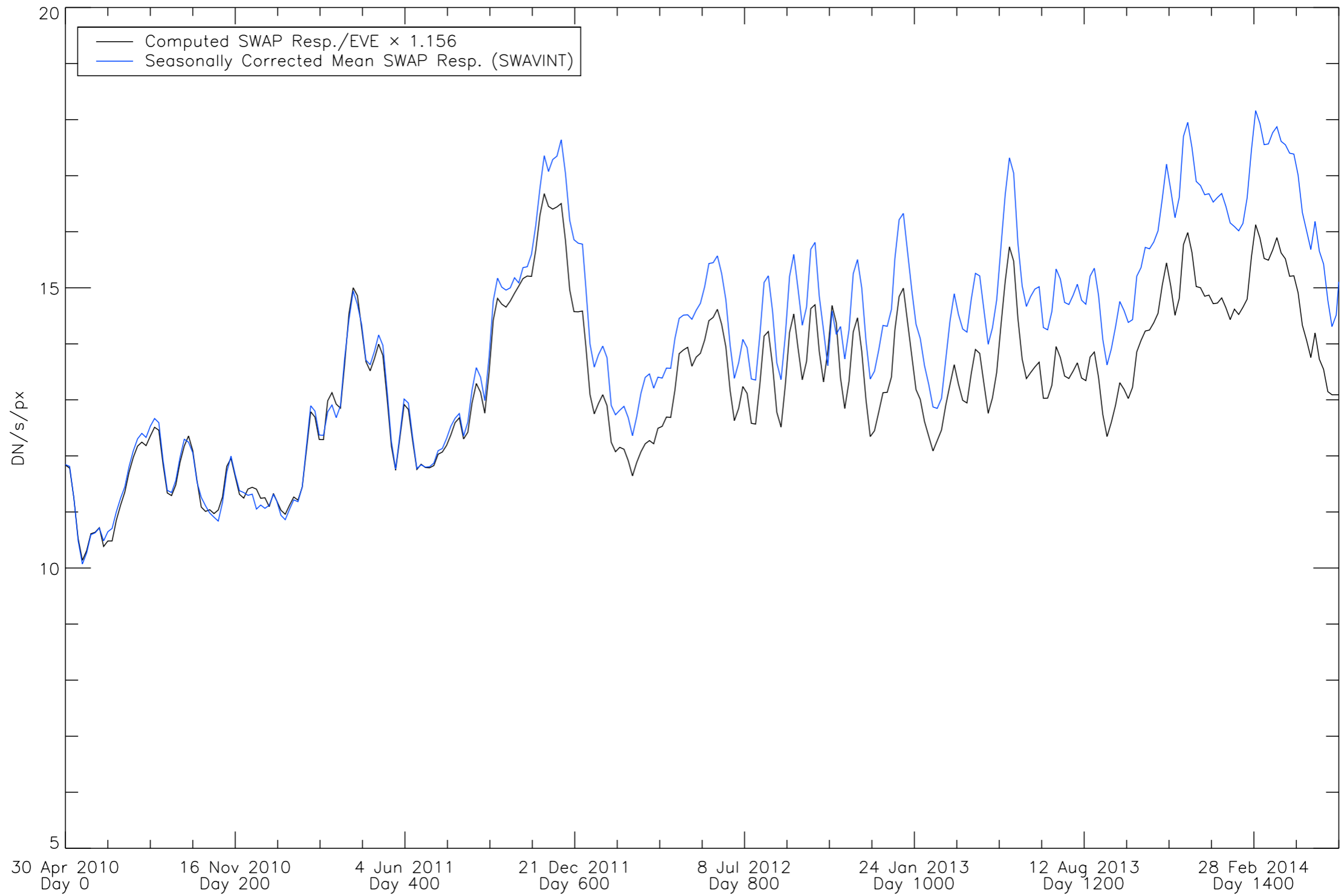
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SWAP Status Update

D.B. Seaton & L.A. Rachmeler

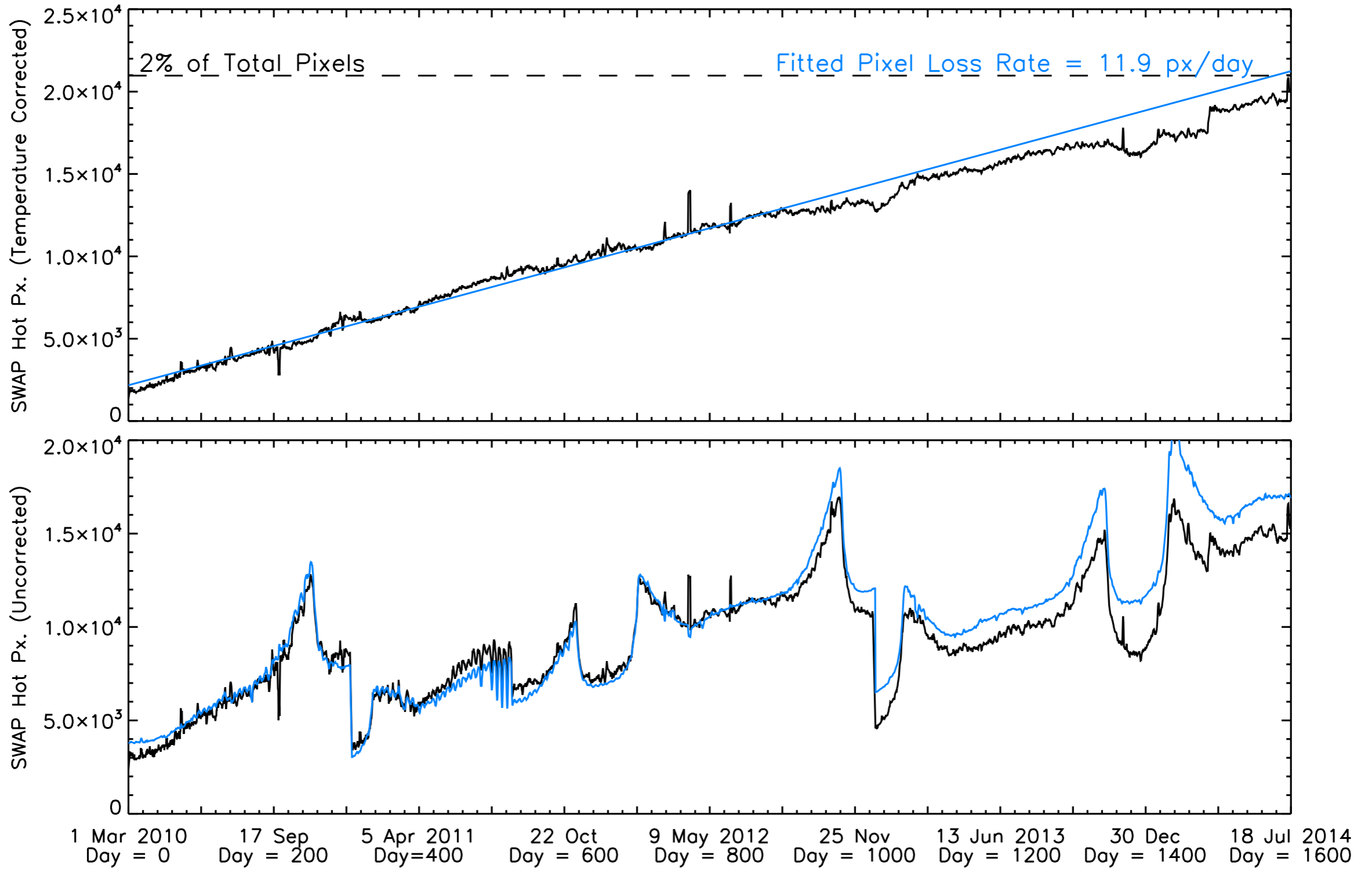
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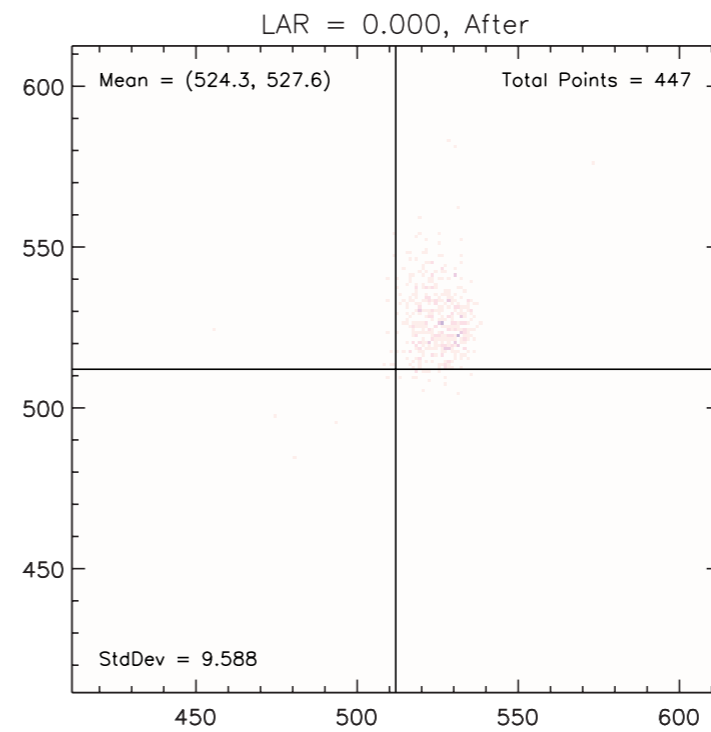
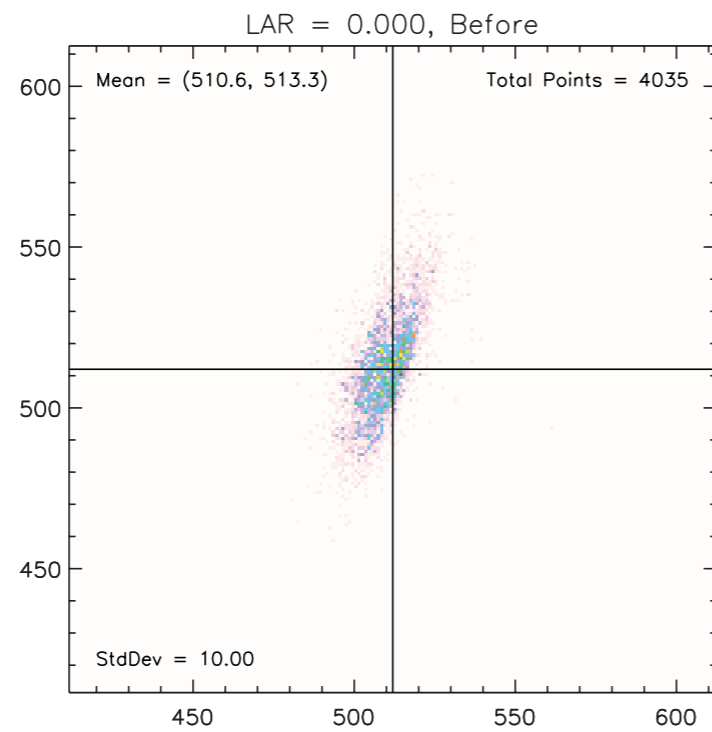
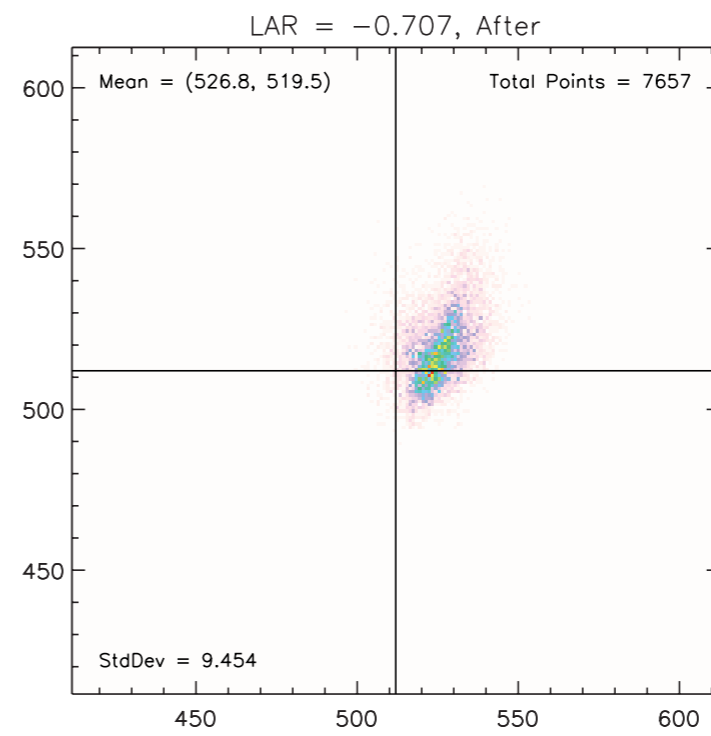
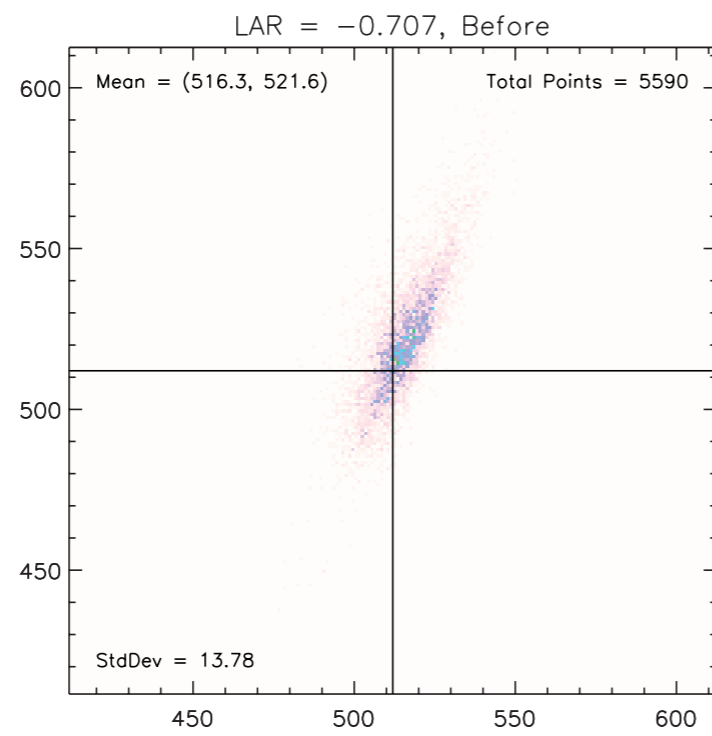
Instrument Health

Spectral Reponse



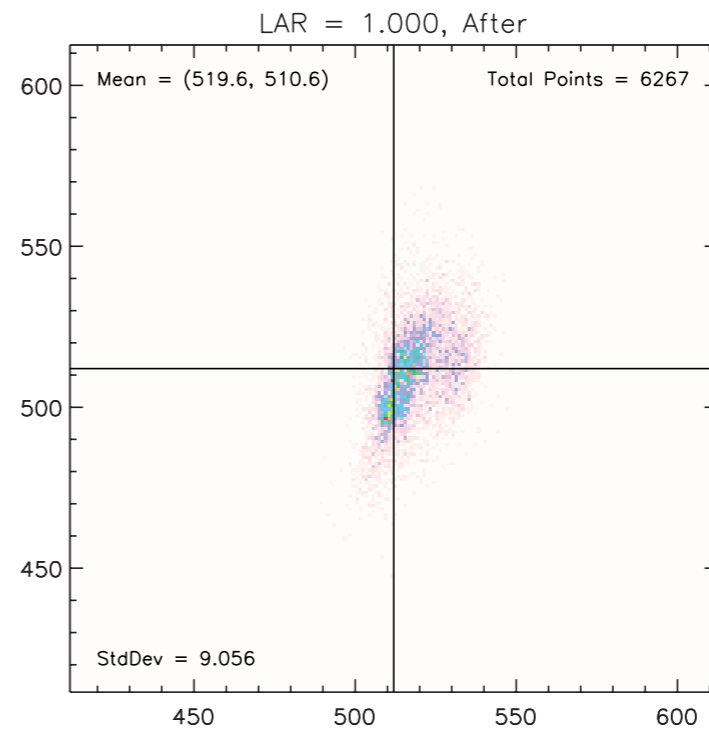
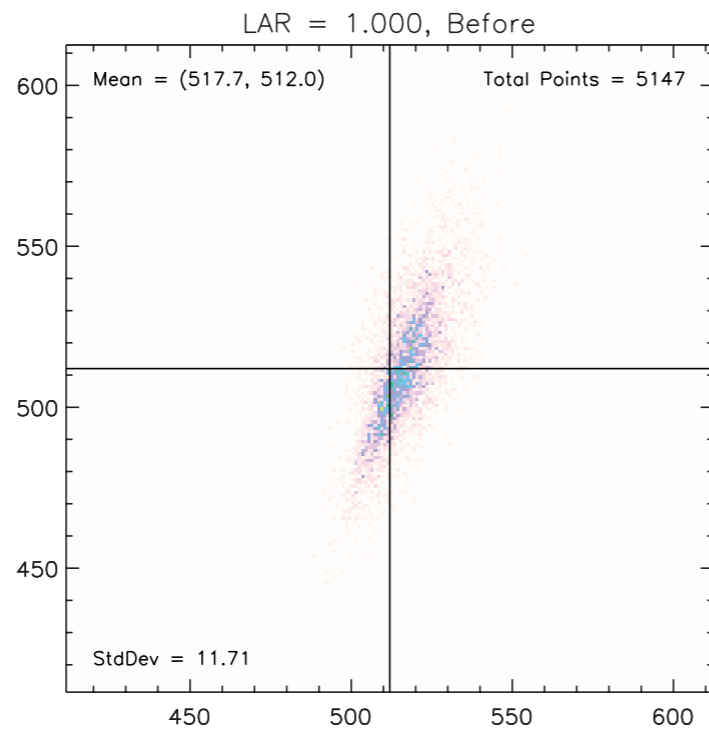
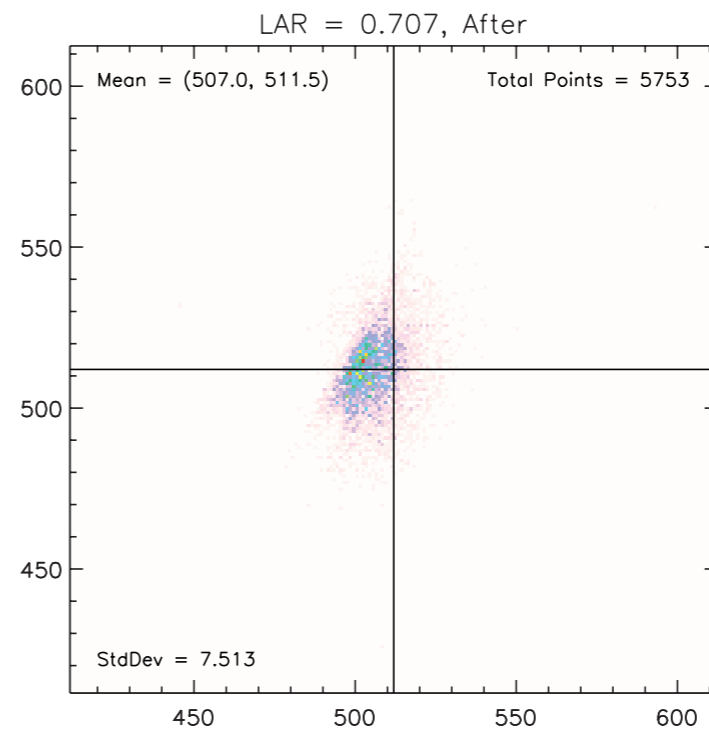
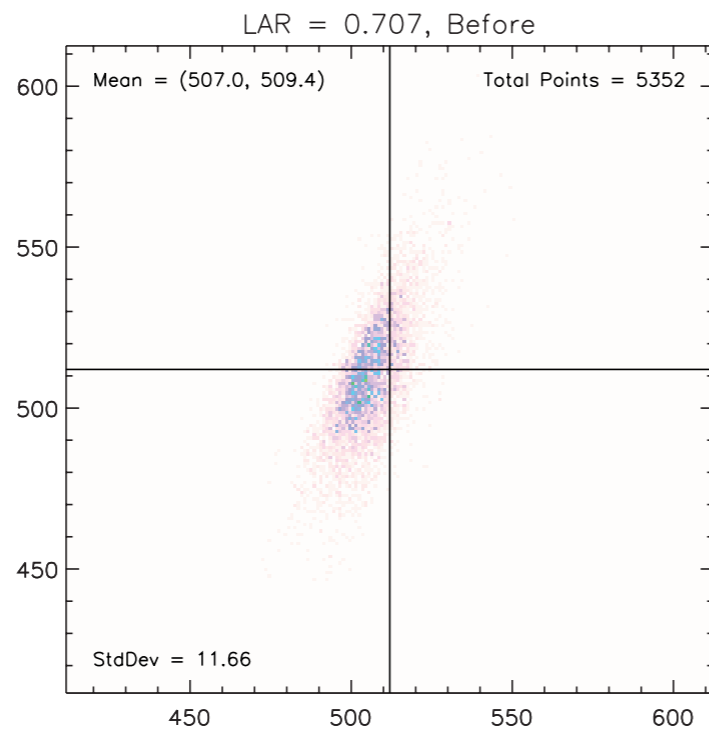
Instrument Health

Spectral Response



PROBA2 Pointing
Upgrade

Fall 2014



PROBA2 Pointing
Upgrade

Fall 2014

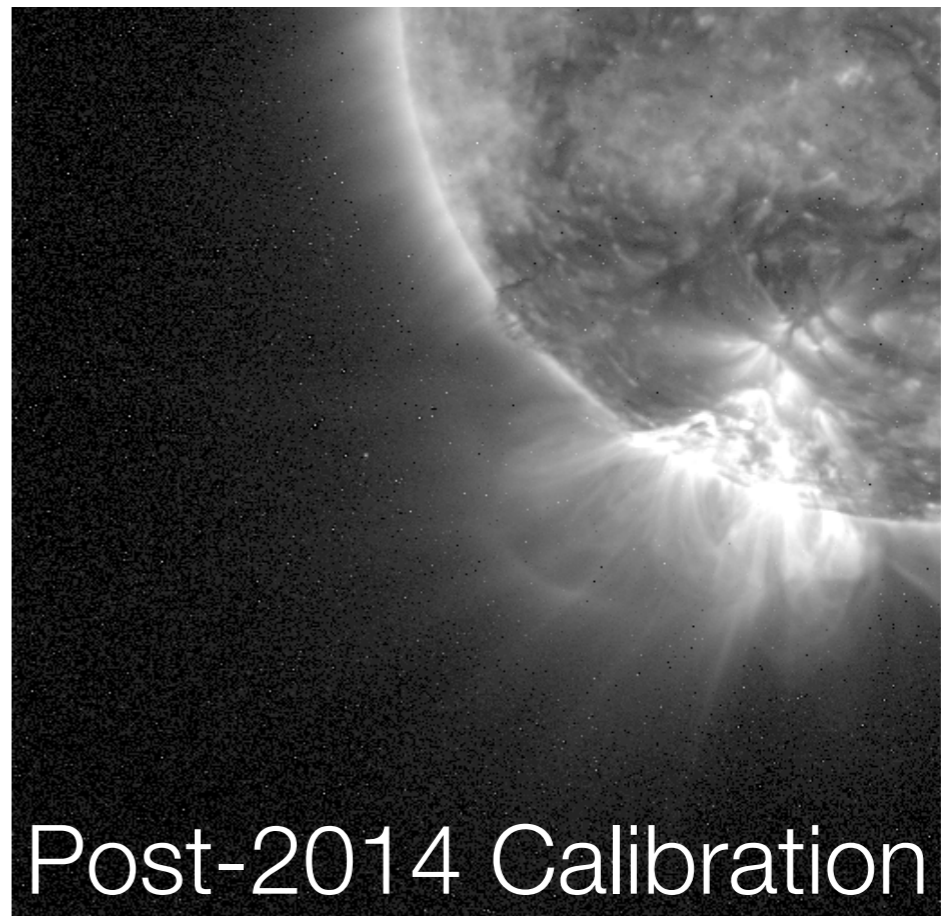
On-Board Software Upgrade - May 2015

- Large Angle Rotation image flagging has reduced blurred images from 15-20% to 0-5% of total images per day
- LZW compression patch should resolve lossless compression issues (Under Evaluation)
- SWAP download blockage problems resolved

Calibration Improvements

- Bakeout & Dark Current Correction (Spring 2014)
- Plate scale and image orientation improvements (Late Spring 2014)
- Blurriness detector and new median products soon

Pre-2014 Calibration

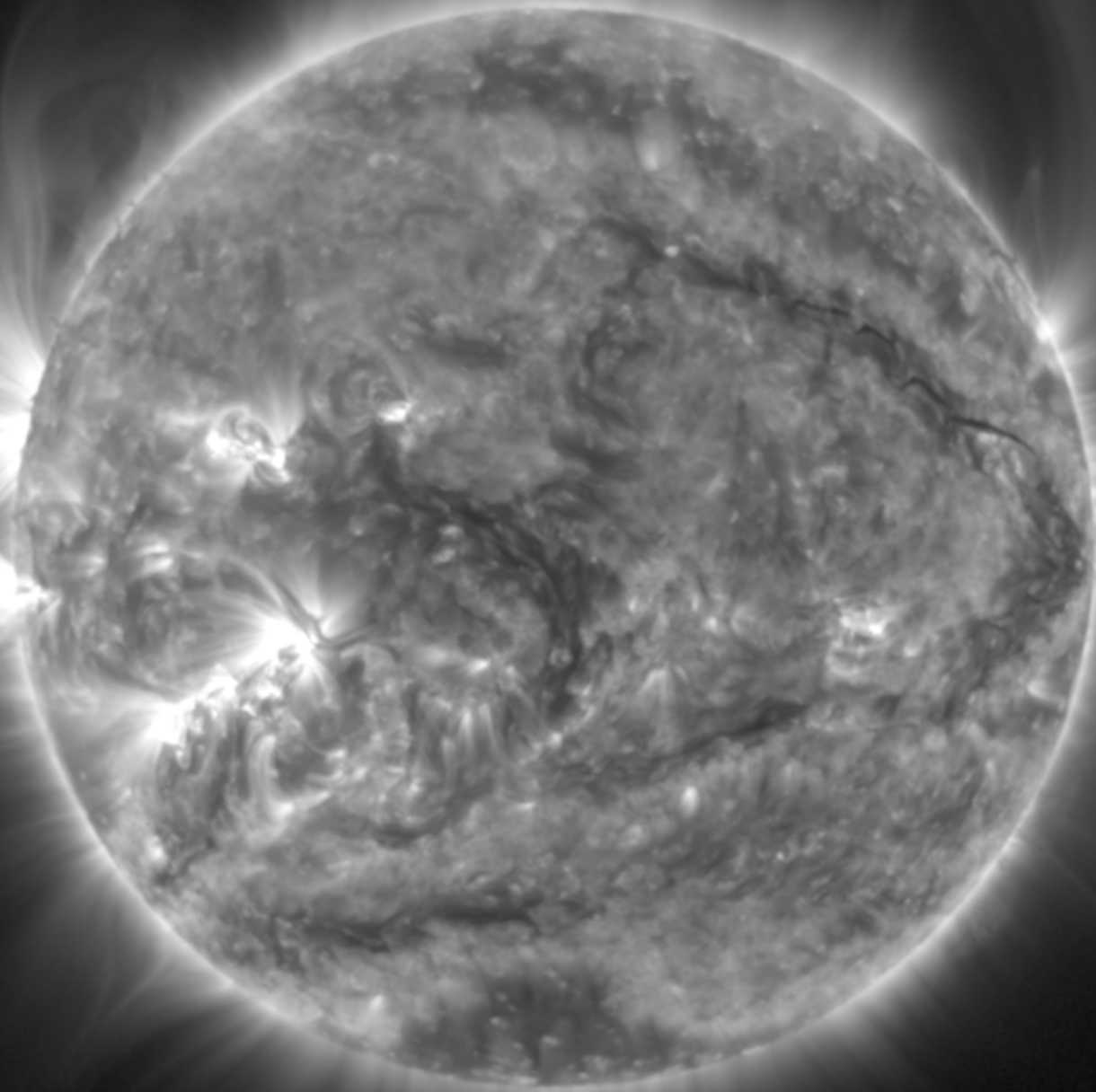


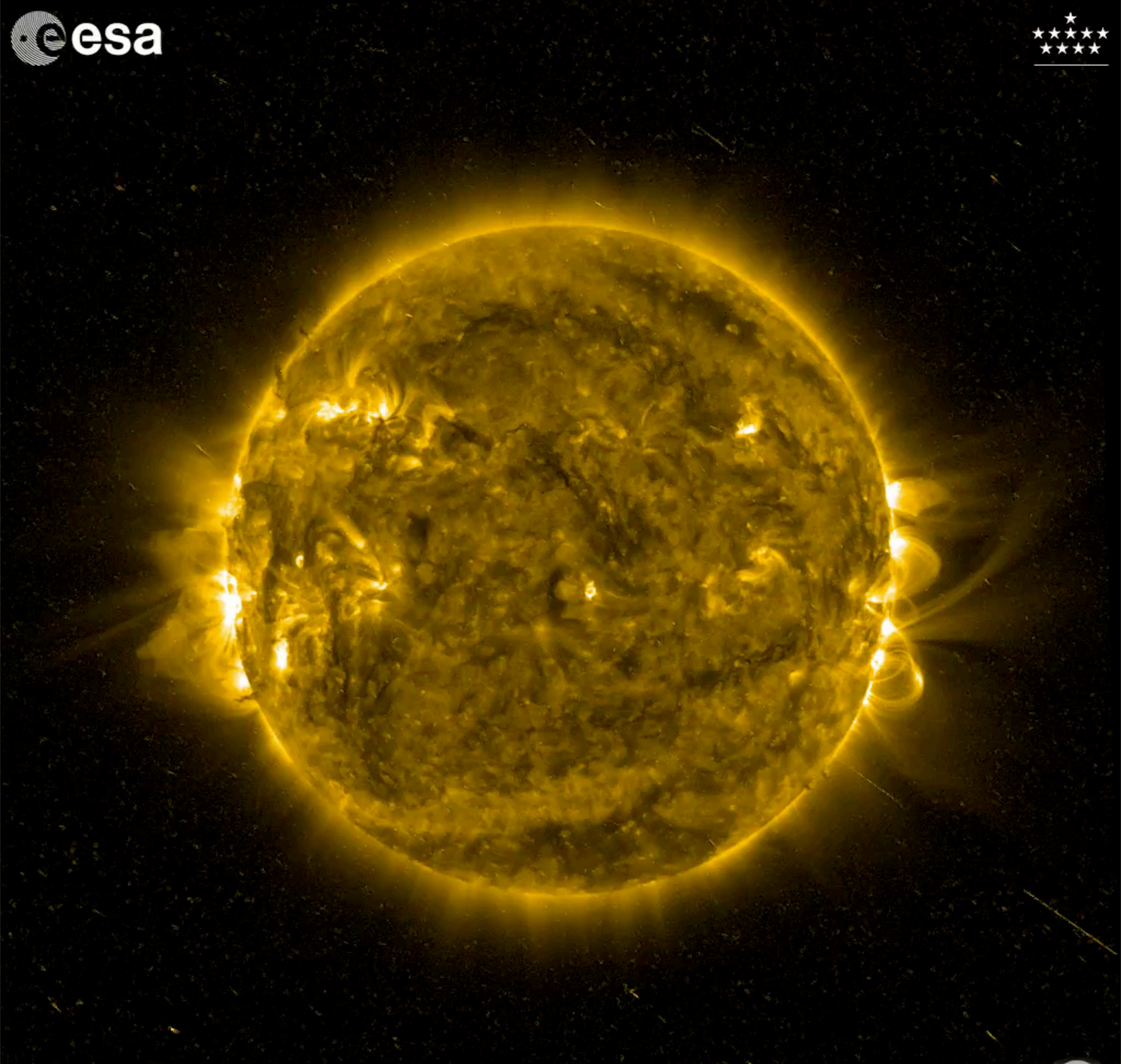
Post-2014 Calibration

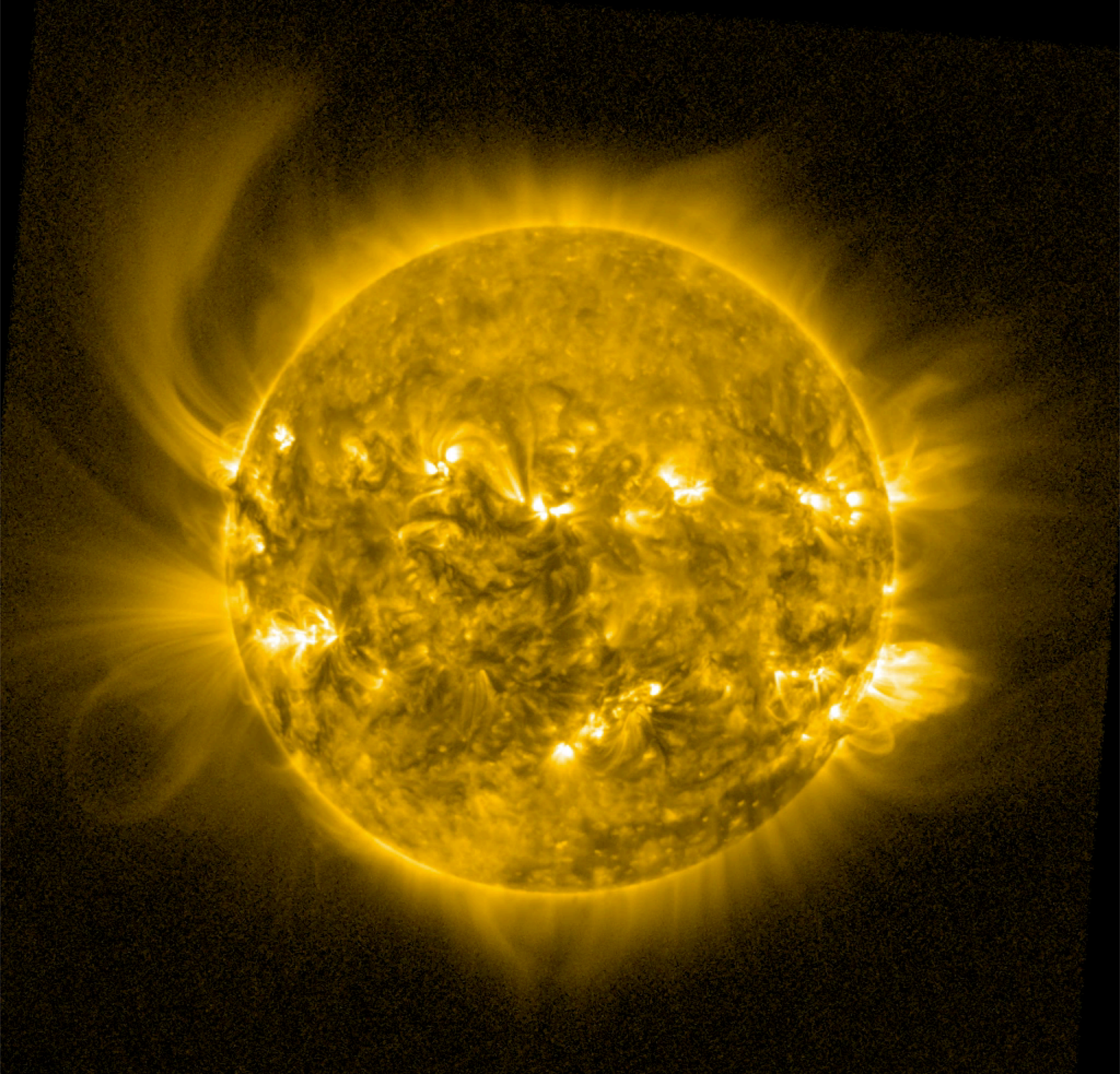
Events and Observations

- 2015 Joint observations of Faraday Rotation in STEREO-A carrier signal
- 2015 March 20 Total Solar Eclipse
- Post-Flare Giant Arches
- South Pole Magnetic Field Reversal
- Large-Scale Evolution of the Corona
 - ESA & AAS/SPD Press Releases

▫ STEREO-A

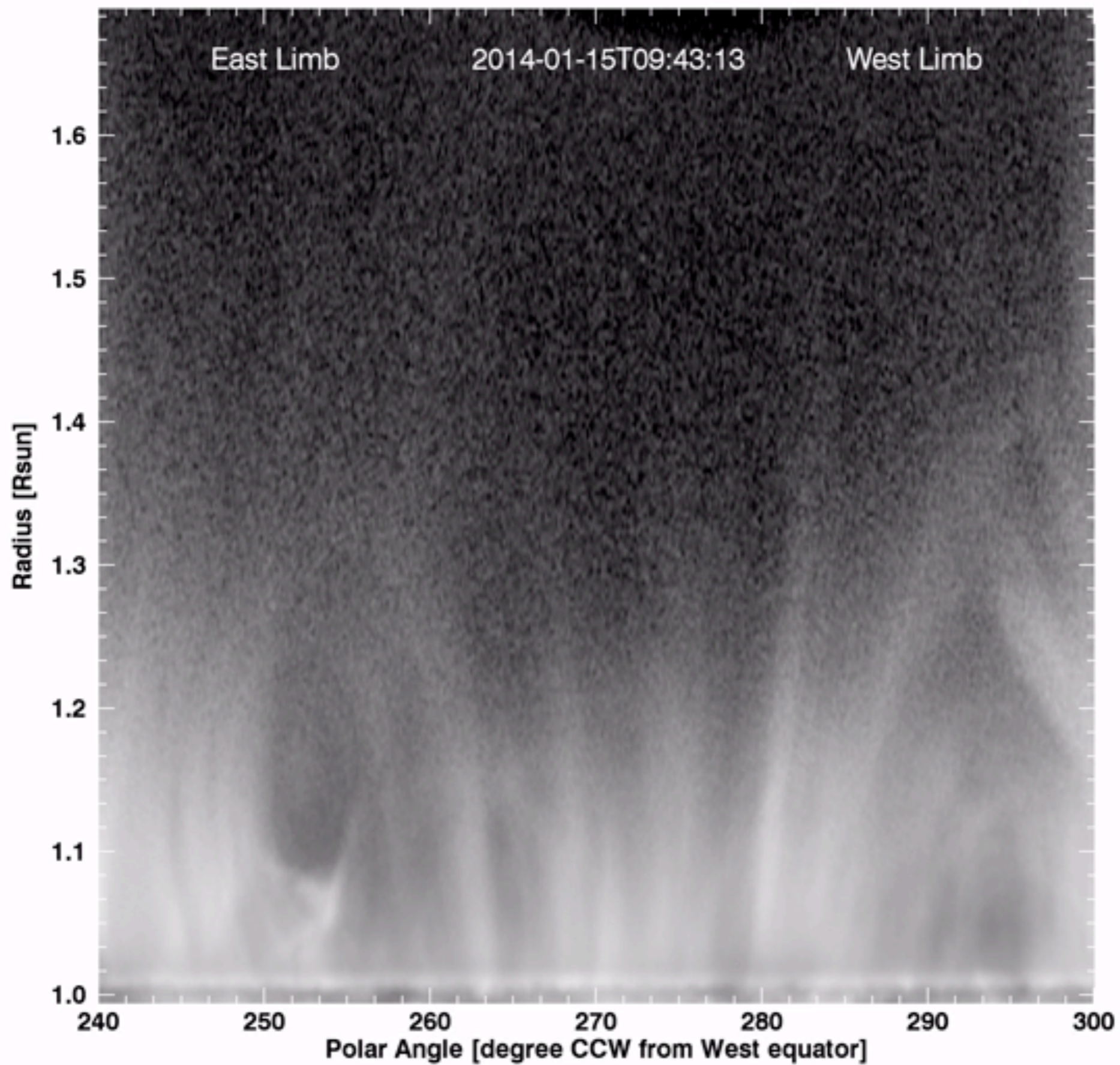




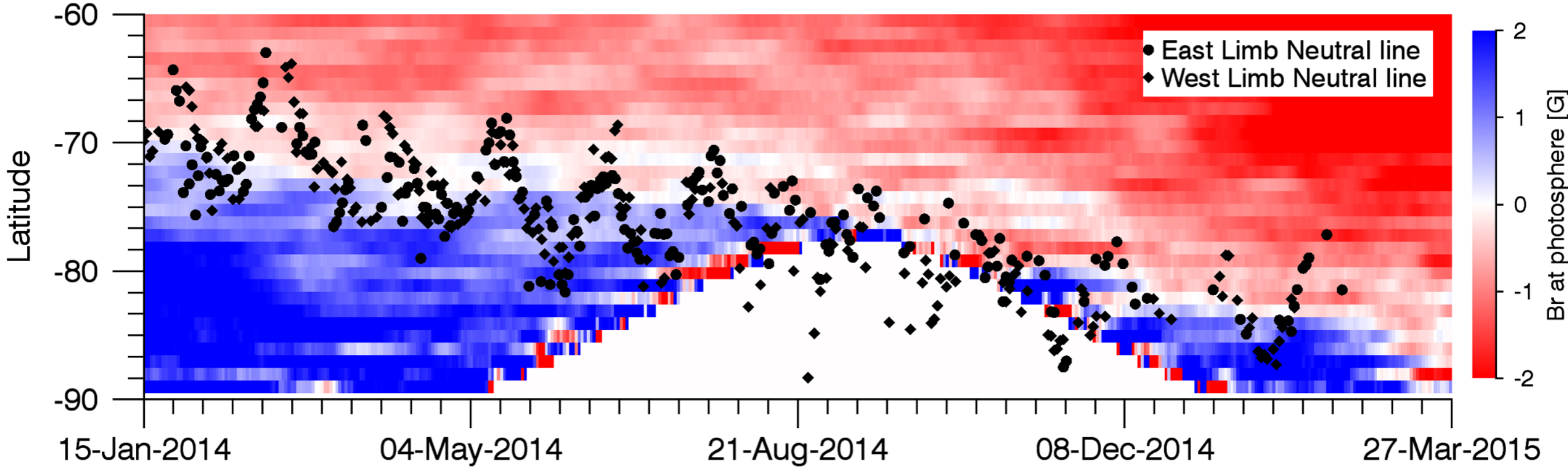


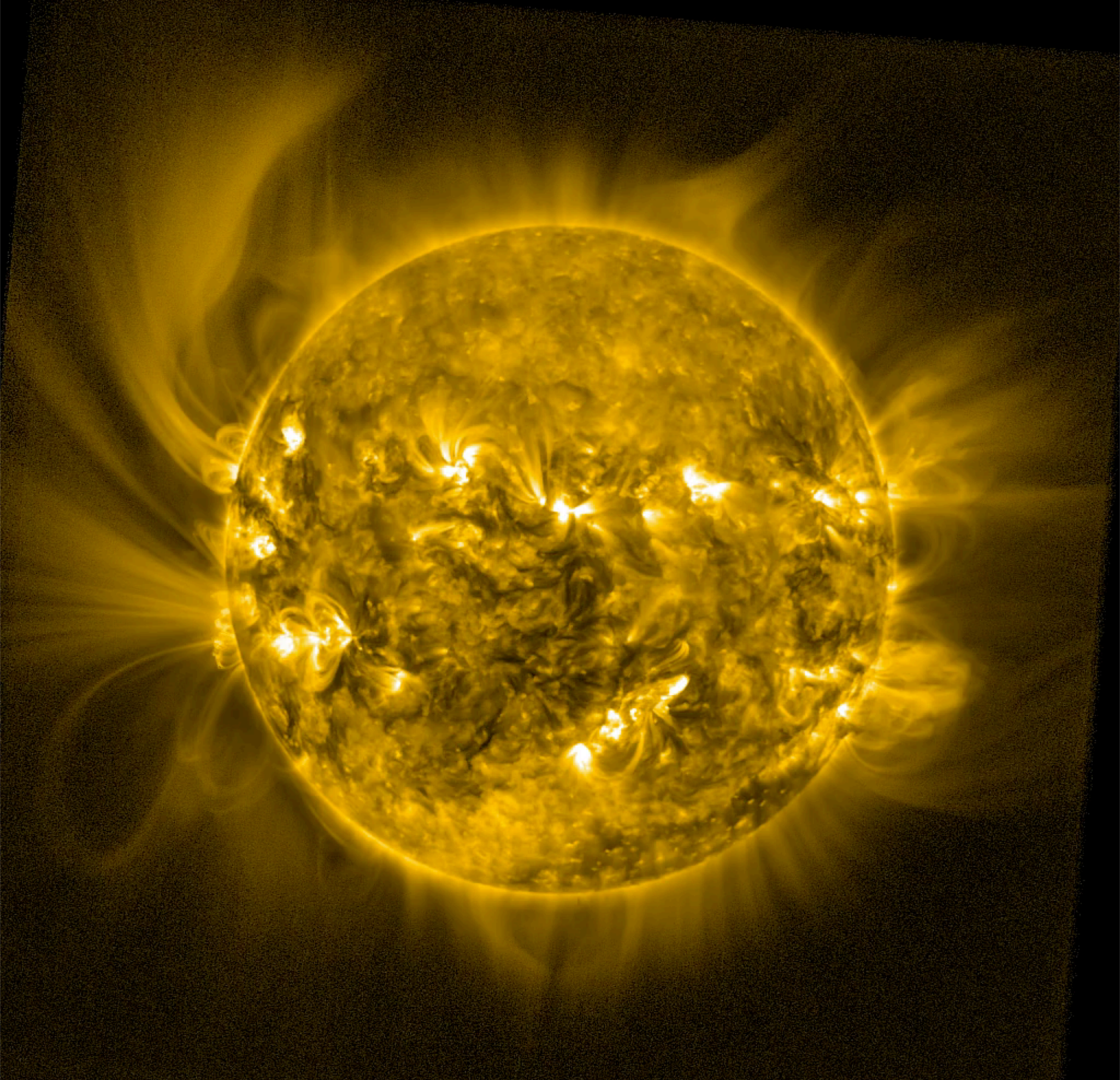
PROBA2/SWAP 17.4nm 2014-10-14 18:01:51

Pseudostreamer Evolution



Neutral Line





PROBA2/SWAP 17.4nm 2014-10-15 00:23:11

Questions?