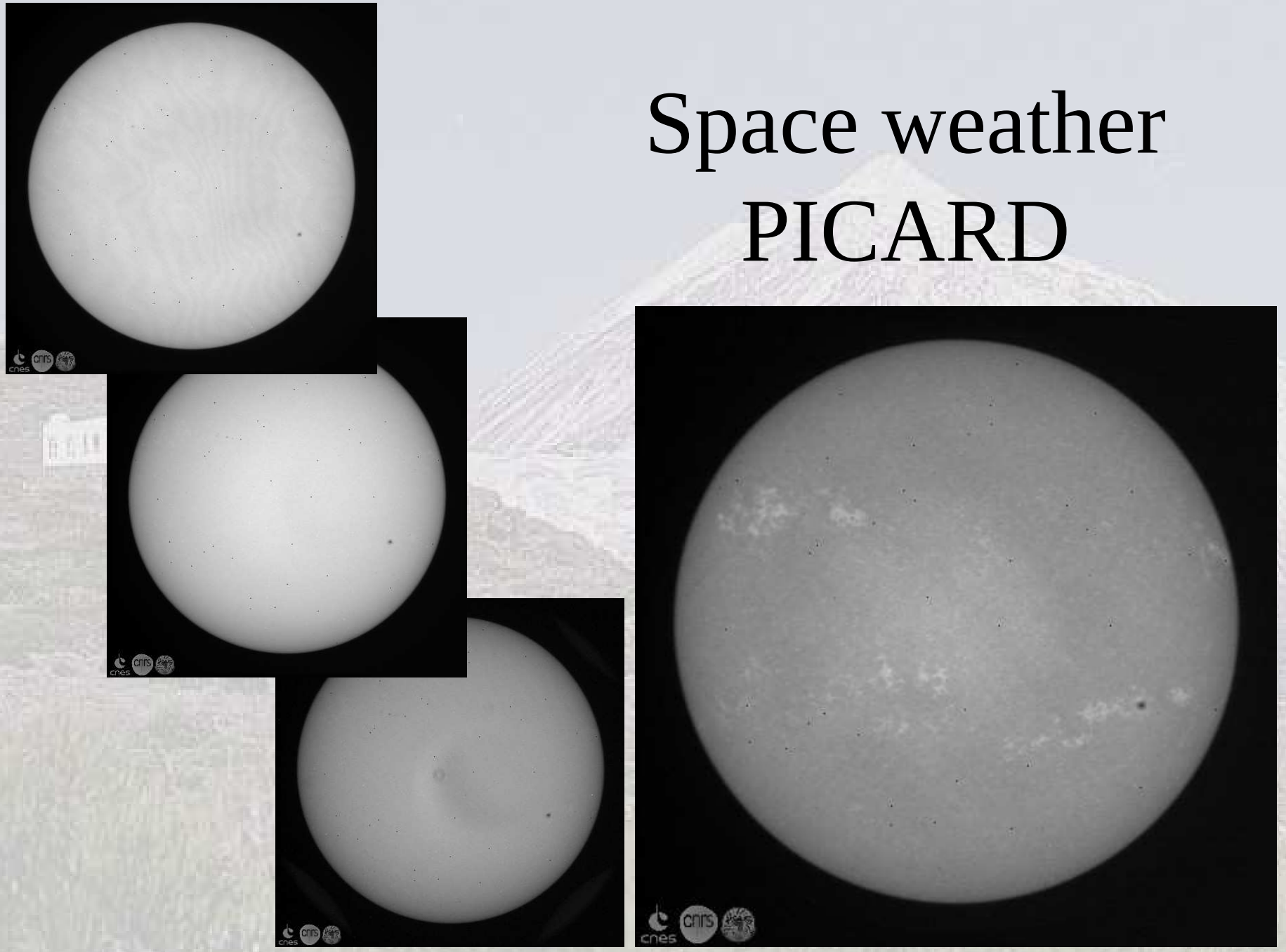
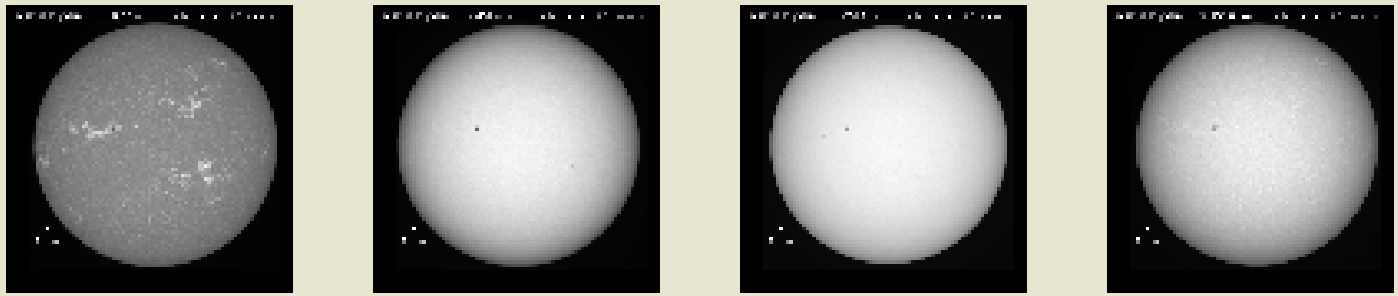
Space weather
PICARD



Precision Solar Photometric Telescopes

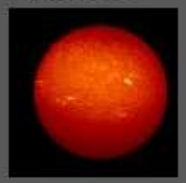
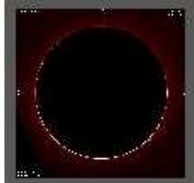
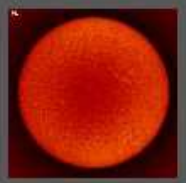
PSPT network Roma, Hawaï, Sacramento Peak

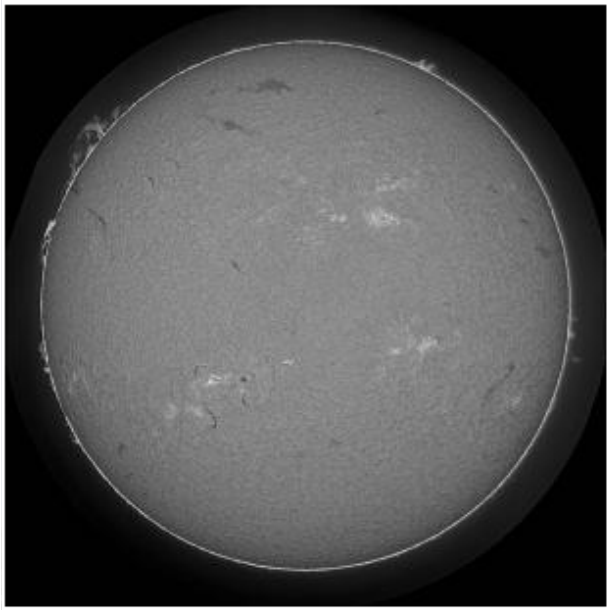
CaII K line, 410 nm and 608 nm continuum, G band



Global H alpha network

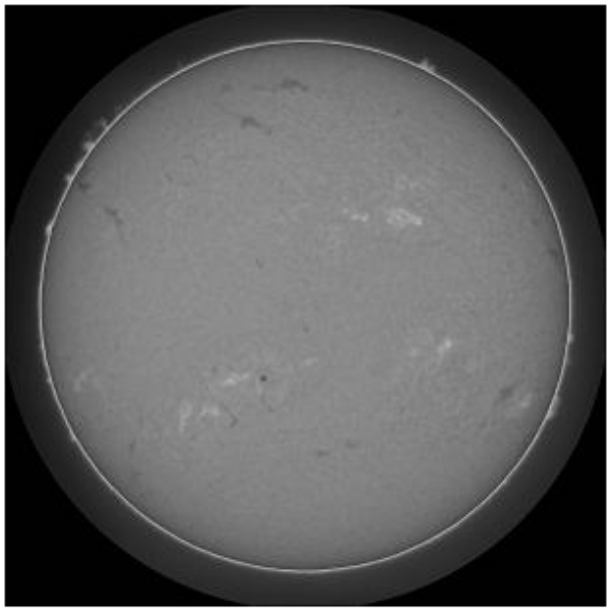
Headed by Big Bear Solar Observatory

Mauna Loa Solar Observatory	Big Bear Solar Observatory	Observatory de Paris, Meudon	Uccle Solar Equatorial Table	Observatoire Midi-Pyrénées	Kanzelhöhe Solar Observatory	Catania Astrophysical Observatory	Yunnan Astronomical Observatory
							
18:29:48 UT Apr 05, 2011	21:25:24 UT Mar 27, 2012	12:01:10 UT Mar 28, 2012	14:23:25 Mar 28, 2012	09:58:00 UT Mar 28, 2012	08:13:13 UT Mar 28, 2012	09:55:36 UT Mar 26, 2012	02:19:03 Mar 23, 2012
							
18:28:49 UT Apr 05, 2011	21:25:24 UT Mar 27, 2012	12:01:10 UT Mar 28, 2012	14:23:25 Mar 28, 2012	09:58:00 UT Mar 28, 2012	08:13:13 UT Mar 28, 2012	09:55:36 UT Mar 26, 2012	02:19:03 Mar 23, 2012



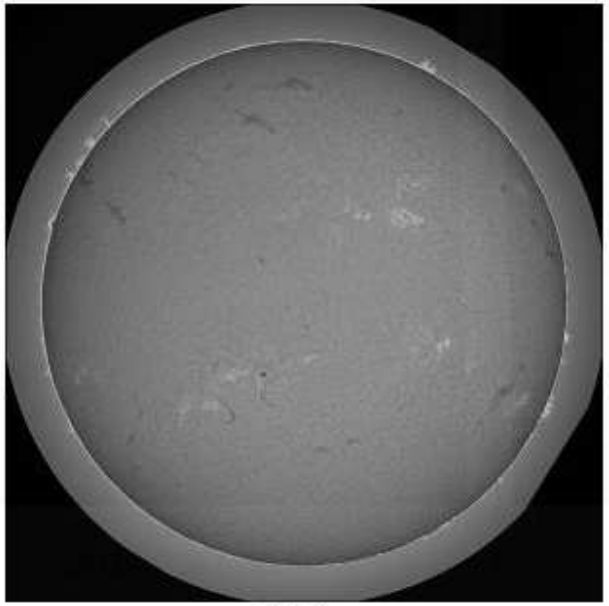
Learmonth
2012-03-28 09:35:34

Udaipur
2012-03-28 12:02:54

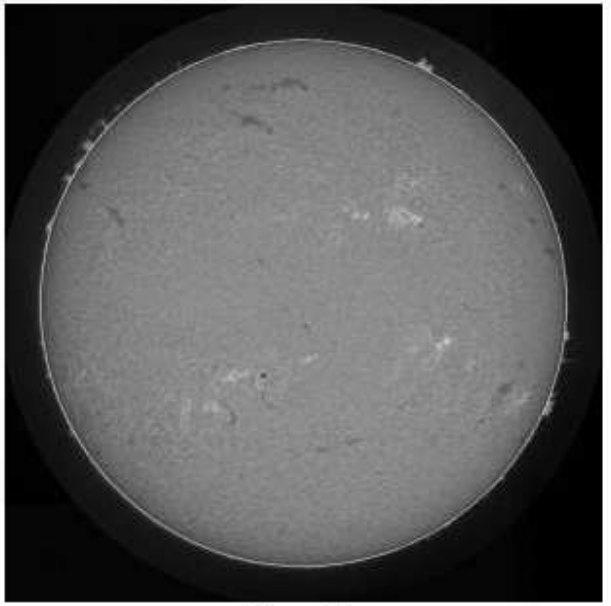


El Teide
2012-03-28 18:32:14

Cerro Tololo
2012-03-28 14:58:34



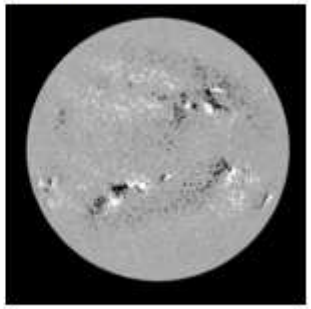
Big Bear
2012-03-28 19:32:54



Mauna Loa
2012-03-28 19:32:14

Big Bear (bb) The Big Bear instrument is operational, and the sky is overcast.


bbbqa120328t2254.jpg


bbiqa120328t2254.jpg

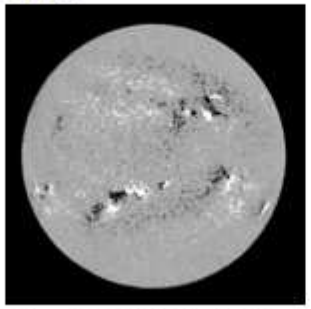
Cerro Tololo (ct) The CTIO instrument is operational, and the sky is clear.

ctbqa120325t1224.jpg

ctiqa120325t1224.jpg

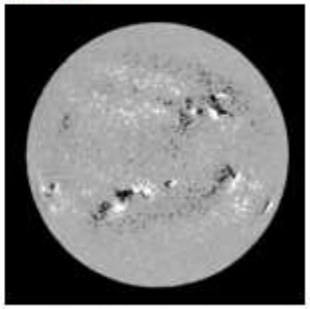
Learmonth (le) The Learmonth instrument is operational, and the sky is clear.


lebqa120329t0134.jpg


leiqa120329t0134.jpg

Mauna Loa (ml) The Mauna Loa instrument is operational, and the sky is clear.

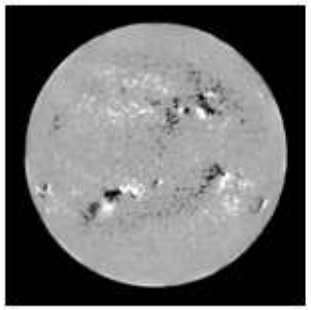

mlbqa120329t0354.jpg


mliqa120329t0354.jpg

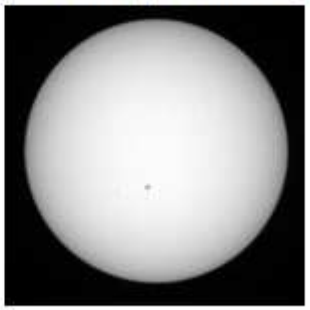
GONG dopplergrams and magnetograms

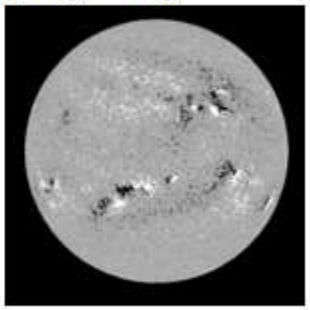
Teide (td) The El Teide instrument is operational, and the sky is clear.


tdbqa120328t1834.jpg

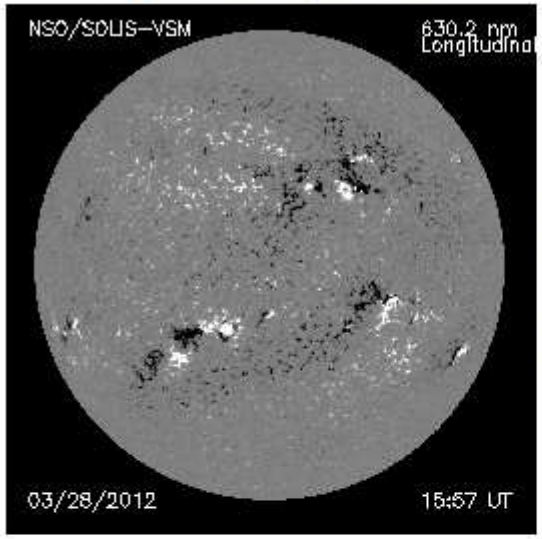

tdiqa120328t1834.jpg

Udaipur (ud) The Udaipur instrument is operational, and the sky is partly cloudy.


udbqa120329t0514.jpg


udiqa120329t0524.jpg

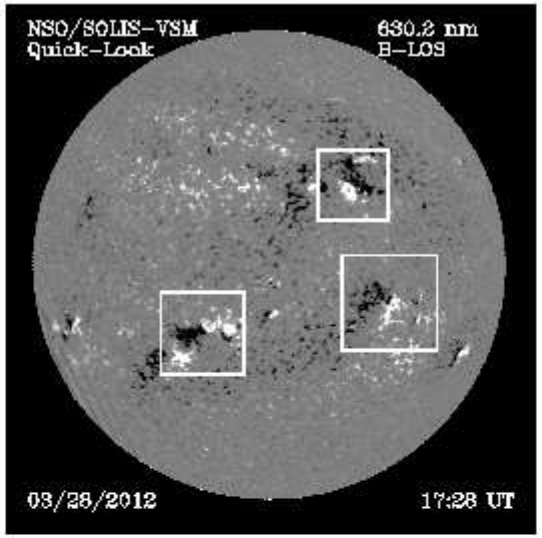
Photosphere (630.2 nm)
Longitudinal Magnetic Field



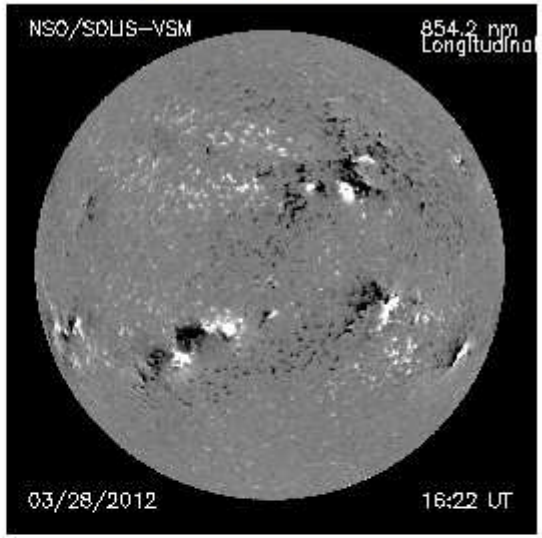
jpg
2"

fits
1"

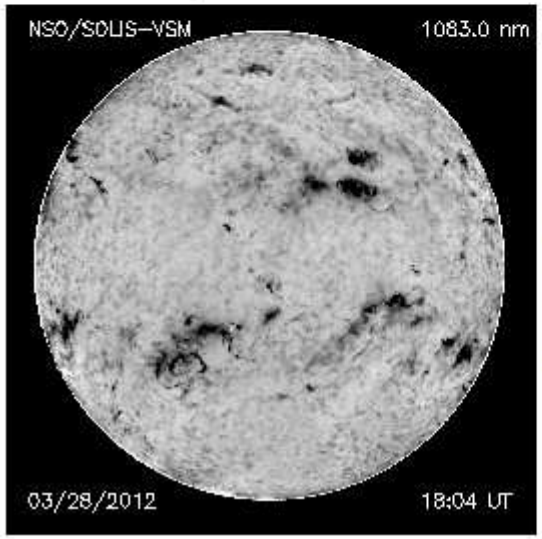
Photosphere (630.2 nm)
Vector Magnetic Field



Chromosphere (854.2 nm)
Longitudinal Magnetic Field



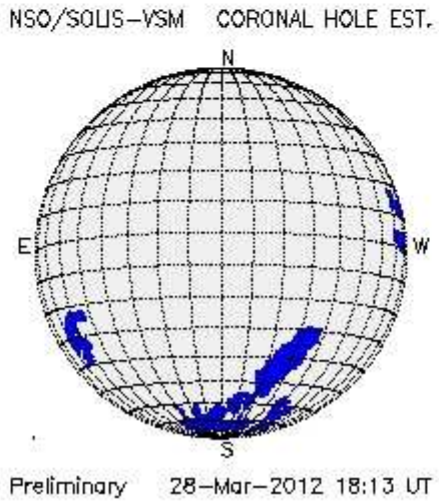
Chromosphere (1083.0 nm)
Equivalent Width



jpg
2"

fits
1"

Chromosphere (1083.0 nm)
Coronal Hole Estimate



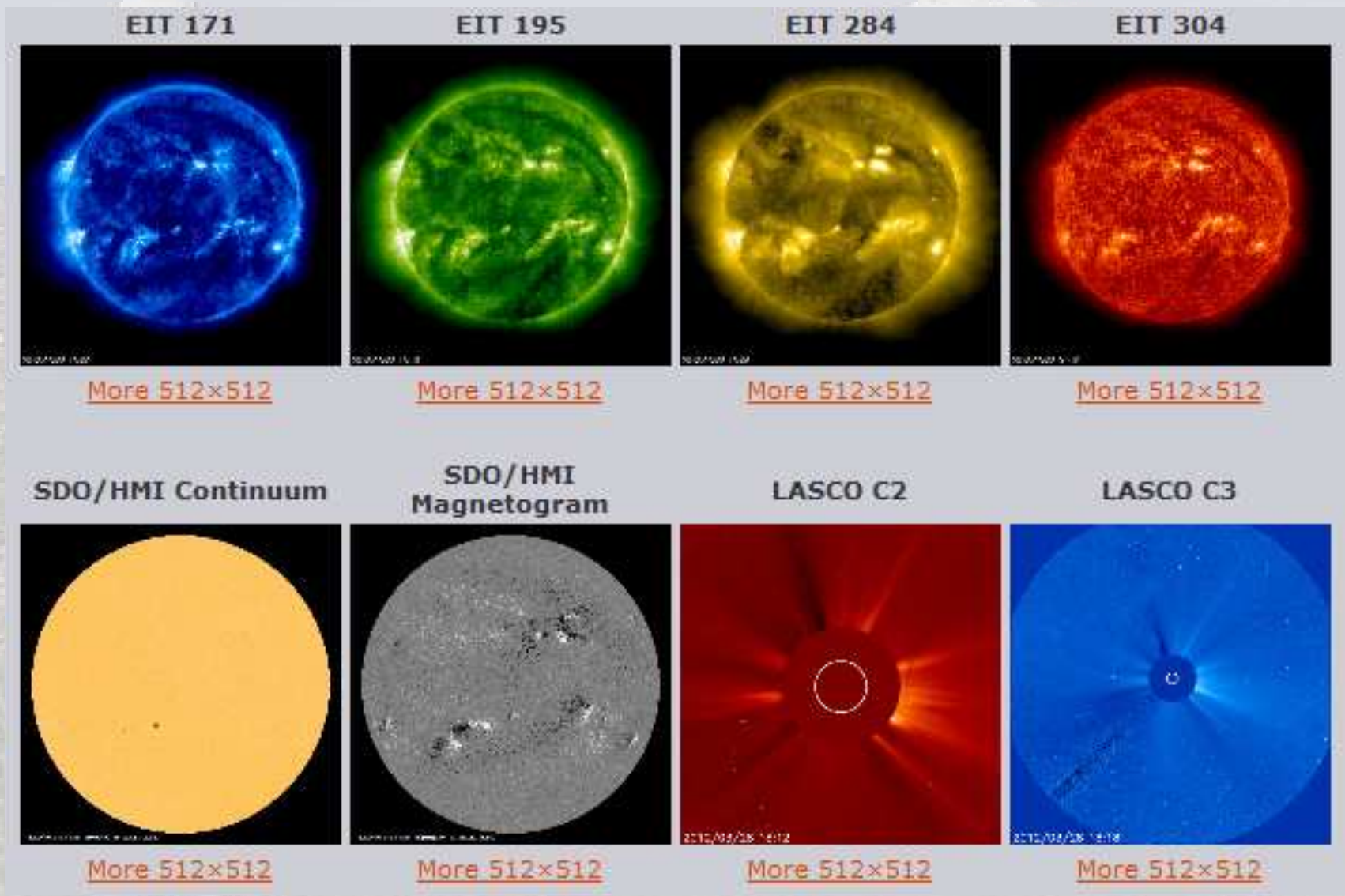
jpg
2"

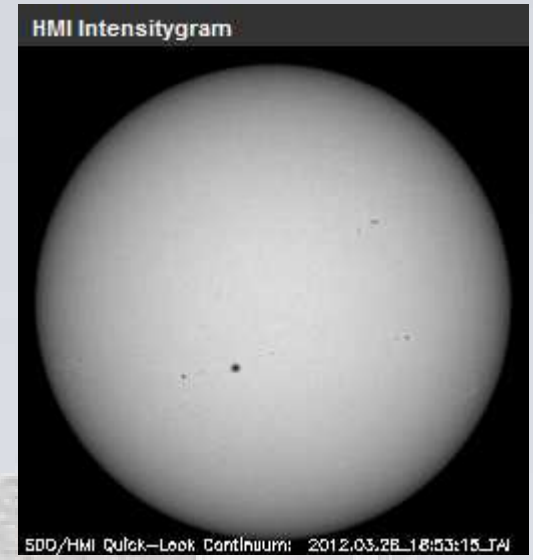
fits
1"

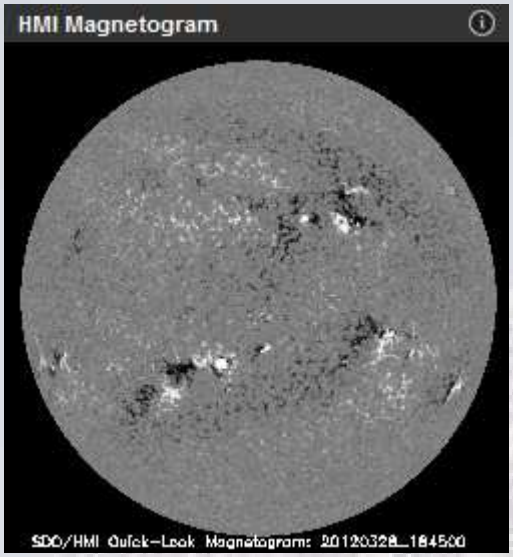
SOLIS KITT PEAK B// magnetograms

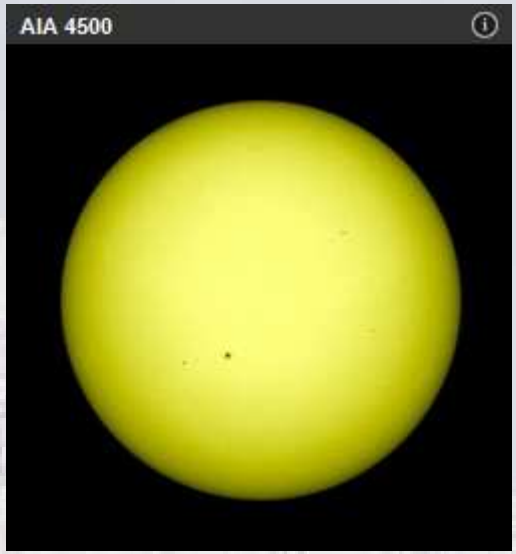
Active region vector magnetograms

SOHO EIT/EUV images and C2/C3 coronal images

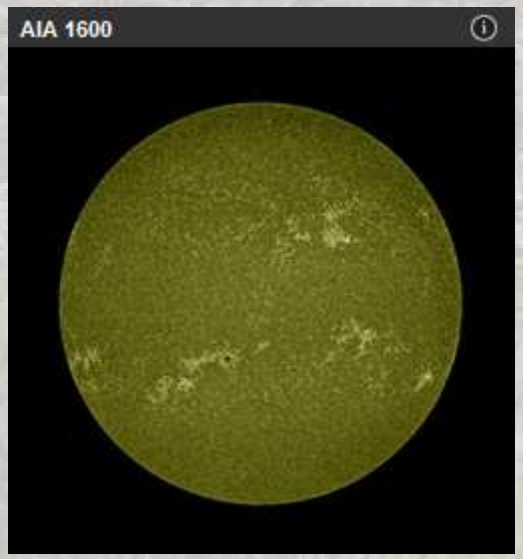


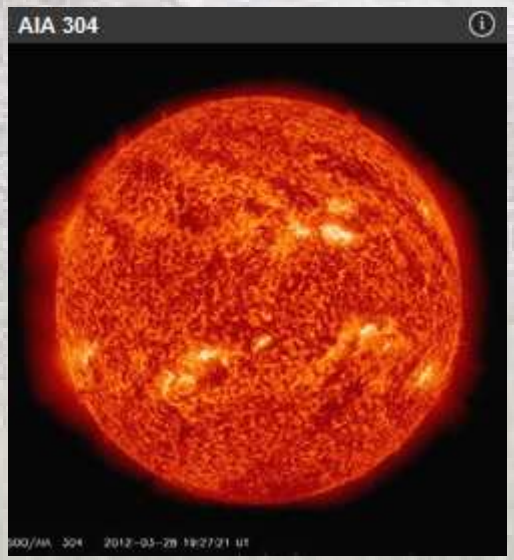


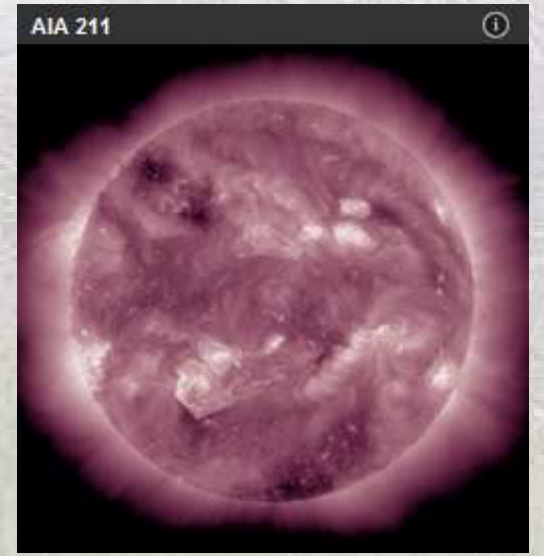




SDO FeI 6173 magnetograms (HMI), visible continuum and EUV images (AIA), 4096 x 4096 pixel 0.5 ’’, good temp. res.

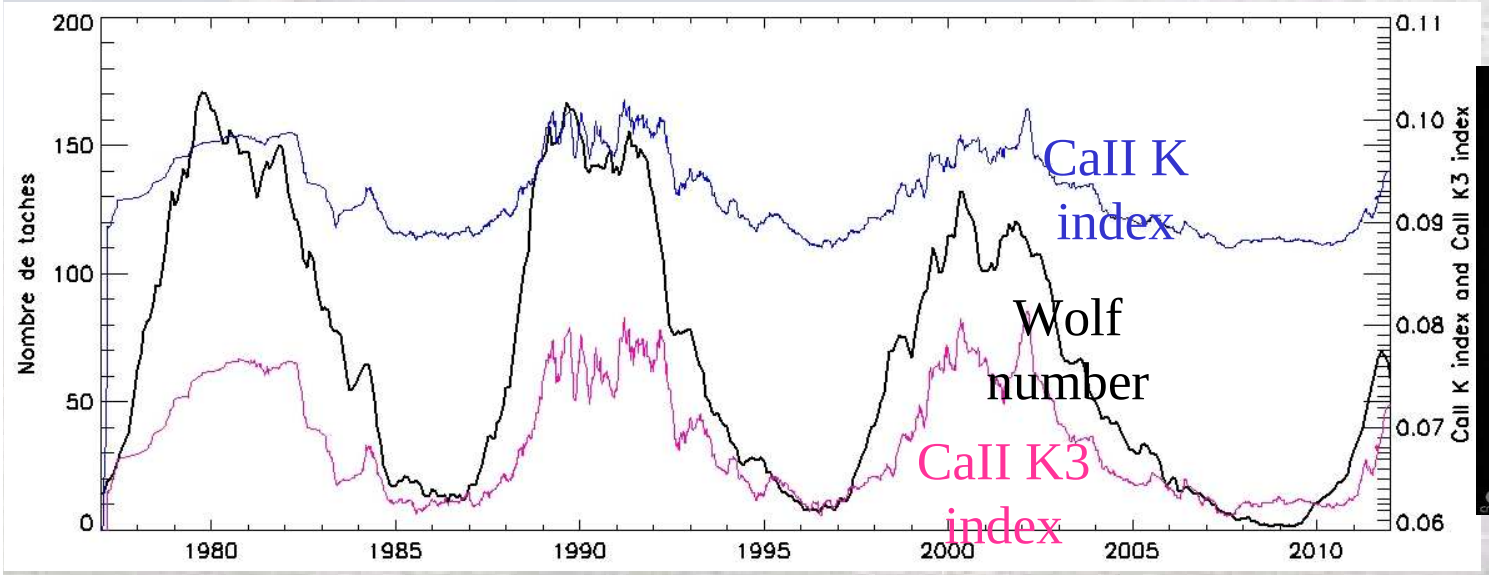


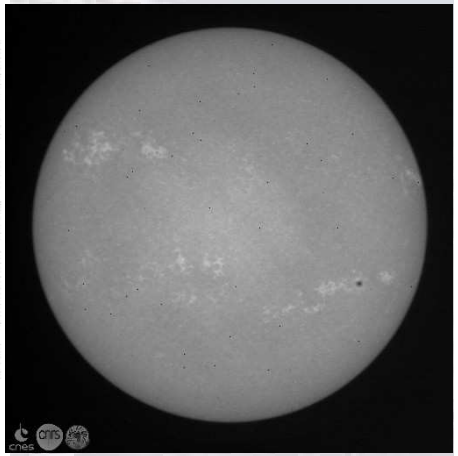




SPACE WEATHER PICARD

Images usefull for space weather purpose: CaII K
(chromosphere, active regions, sunspots, plages)





Originality : no ground based equivalent network in CaII K

Requirements

- good temporal resolution (1 image/ min)

➔ **binning 2x2 + fast download to the earth (< 1 hour)**

Space Weather activities

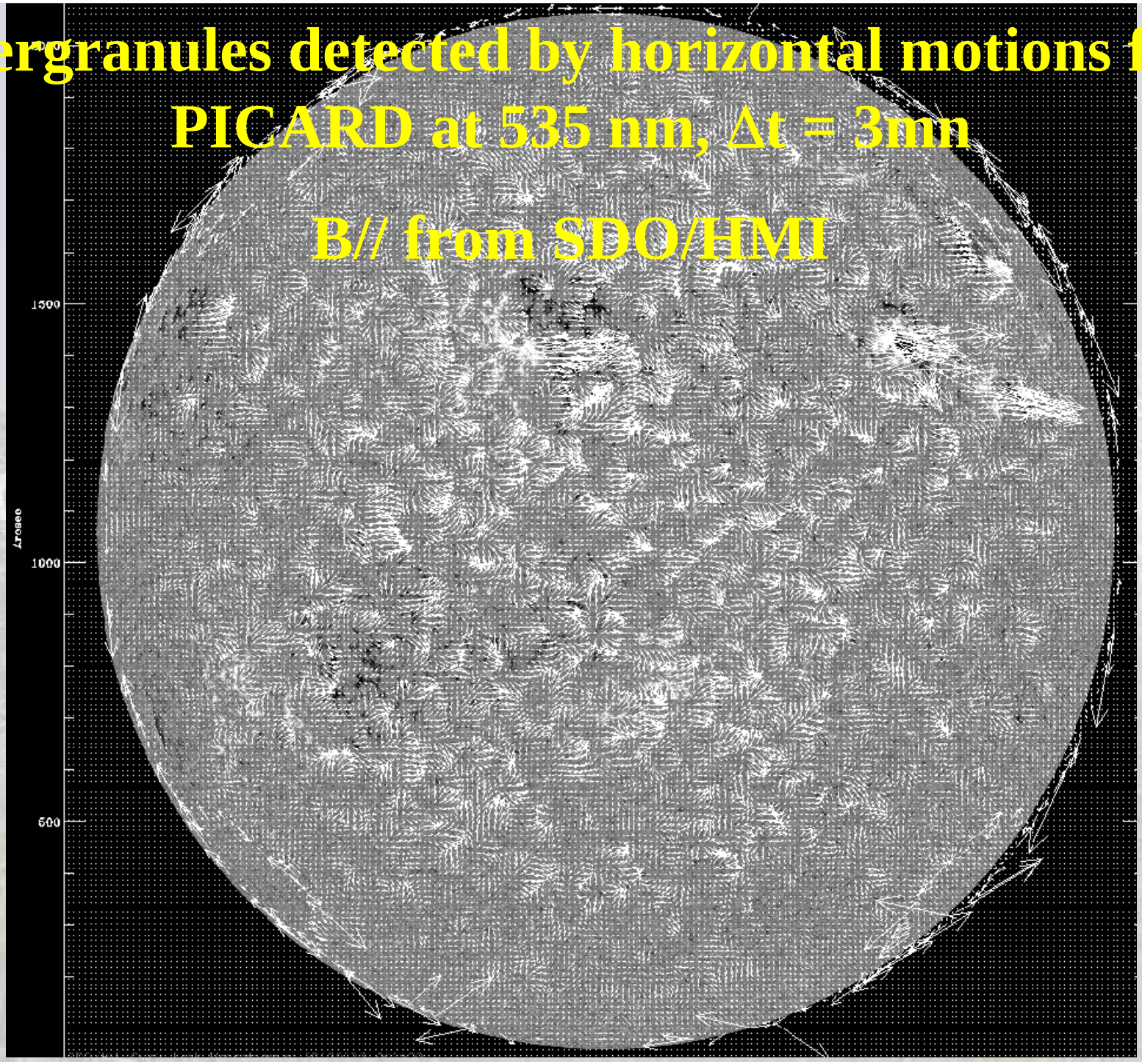
not fully convincing (many other ground based or space instruments, download time, time resolution)

****

Reaching secondary objectives seems to be a more interesting goal

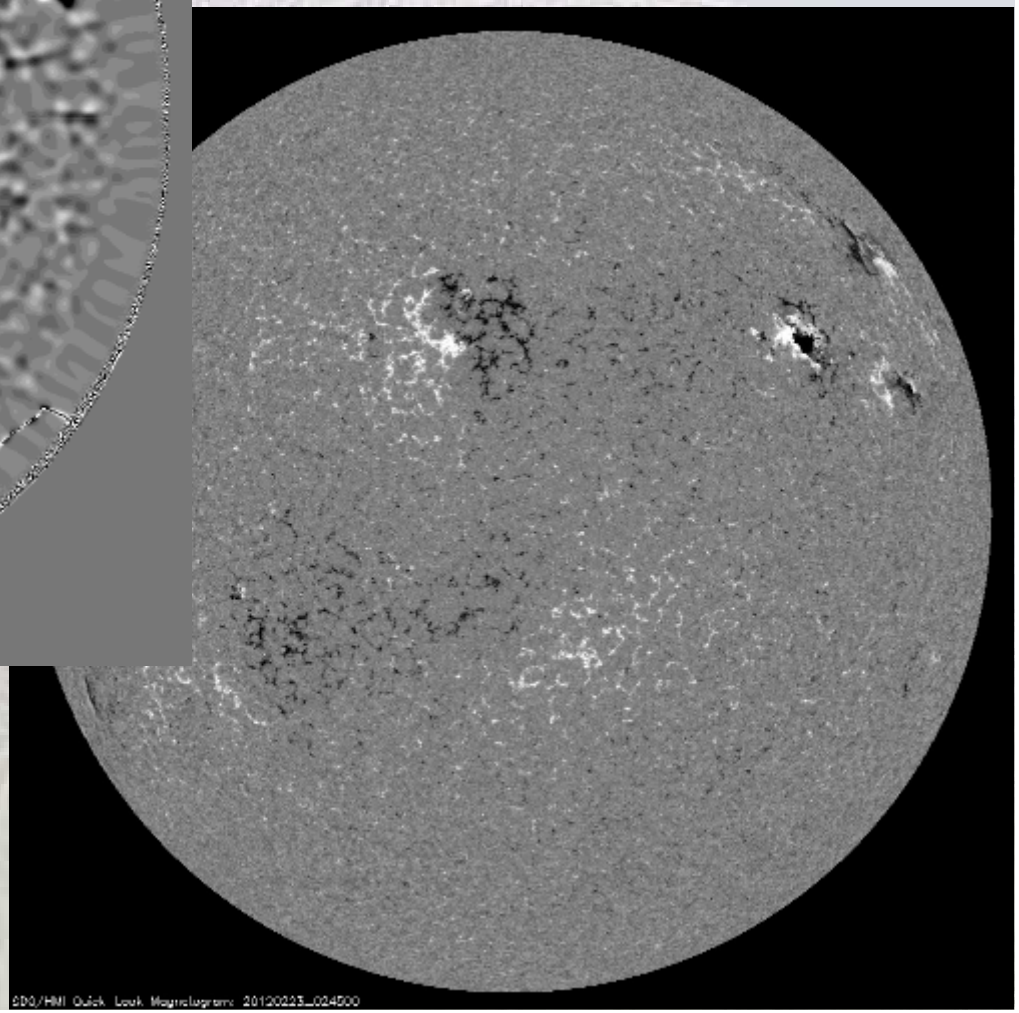
Supergranules detected by horizontal motions from PICARD at 535 nm, Δt = 3mn

B// from SDO/HMI



Velocity divergences at 535 nm, Δt = 3mn

B// from SDO/HMI



Supergranules detected by horizontal motions from PICARD at 535 nm, Δt = 3mn

B// and V// from SDO/HMI (3' x 7' FOV)