

Aurinkohavainnot Hankasalmen radioteleskoopilla



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Hankasalmen radioteleskooppi

- 3 m paraboloidi
- venäläinen säätutka
- siirrettiin Nyrölästä
- AOR AR5000A
- liikennevastaanotin
- diodivastaanotin
- 1.4/1.7/8.4/10 GHz
- tietokoneohjaus
- etäkäyttö



TrackMax1.2

ADC
0.604 v Connect

Telescope
Ra: 008.4116
Dec: 020.3371
Az: 118.6855
Alt: 036.5537

Tracking - taking measurement

RA Dec Find Maximum Center Track

-60:	18.3426, 0.601
-50:	18.5093, 0.604
-40:	18.6760, 0.614
-30:	18.8426, 0.632
-20:	19.0093, 0.830
-10:	19.1760, 0.983
00:	19.3426, 1.050
10:	19.5093, 0.955
20:	19.6760, 0.815
30:	19.8426, 0.693
40:	20.0093, 0.620
50:	20.1760, 0.605
60:	20.3426, 0.604

Fit results:
ResCode: 6 Deviation: 0.00005
p1=0.25109
p2=19.33360
p3=0.56059
p4=0.59831

radioteleskooppi.sky - TheSky6

File Edit View Orientation Data Tools Telescope Help

1x (real time)

POTH Ha...

LST **05:10:10**
RA **08:24:40**
Dec **+19:39:17**
Az **119:06:09**
Alt **35:57:30**

Quiet Scope Slewing

Disconnect Scope Park Scope

Traffic Setup

30' N

W E

S

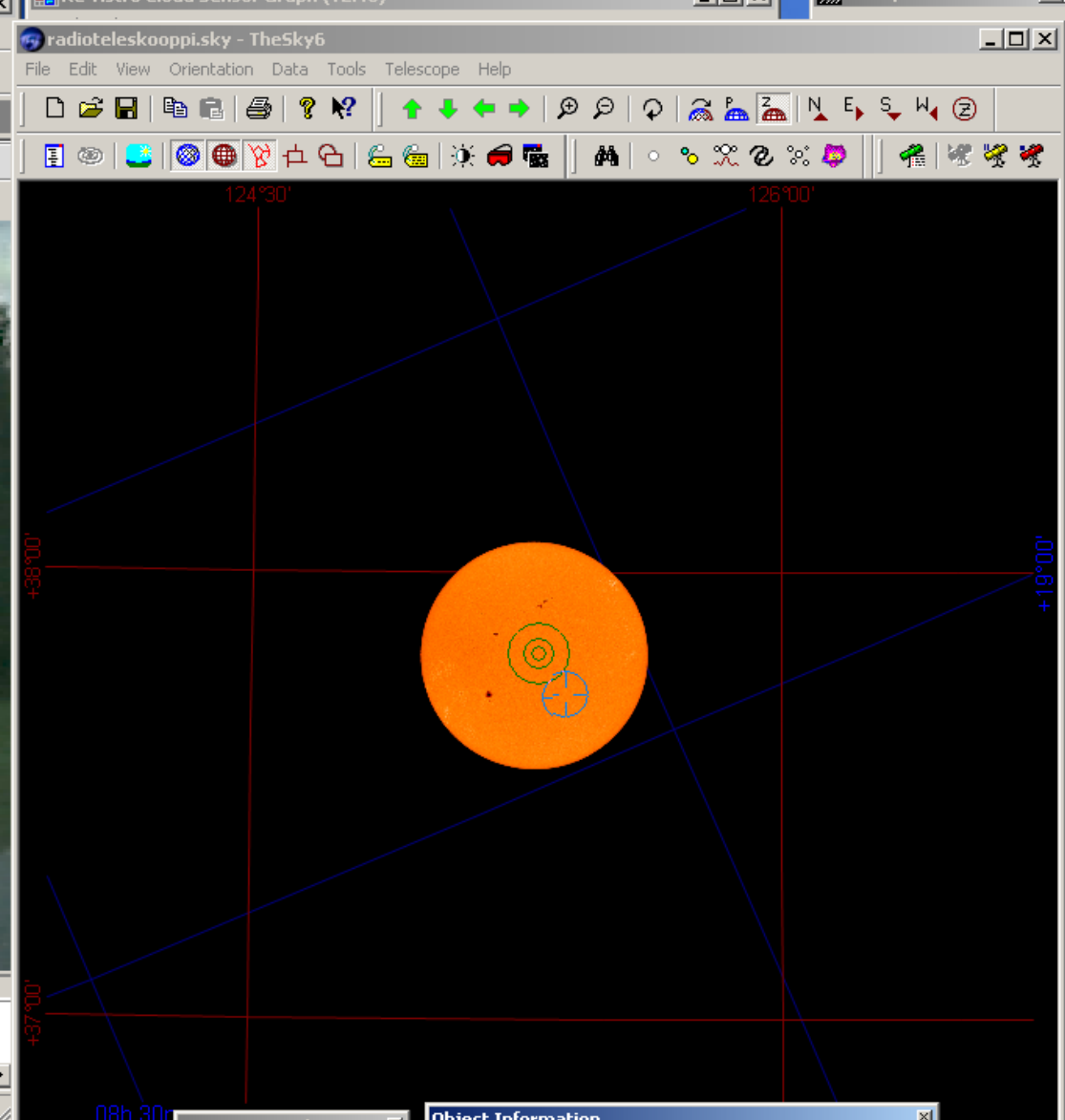
Rel. Sky Temp. (°C) 0 -20 -40 -60

Amb. Temp. (°C)

For Help, press F1 RA:19h 23m 06.6s Dec:+32°25'27" Azr

Phillips VLounge Pikakuvake Radio Telesco...

FocusMax TheSky6.vbs PoleAlignMax



For Help, press F1

Motion Controls

RA, Dec
 Alt, Azm

W N E
S

Abort

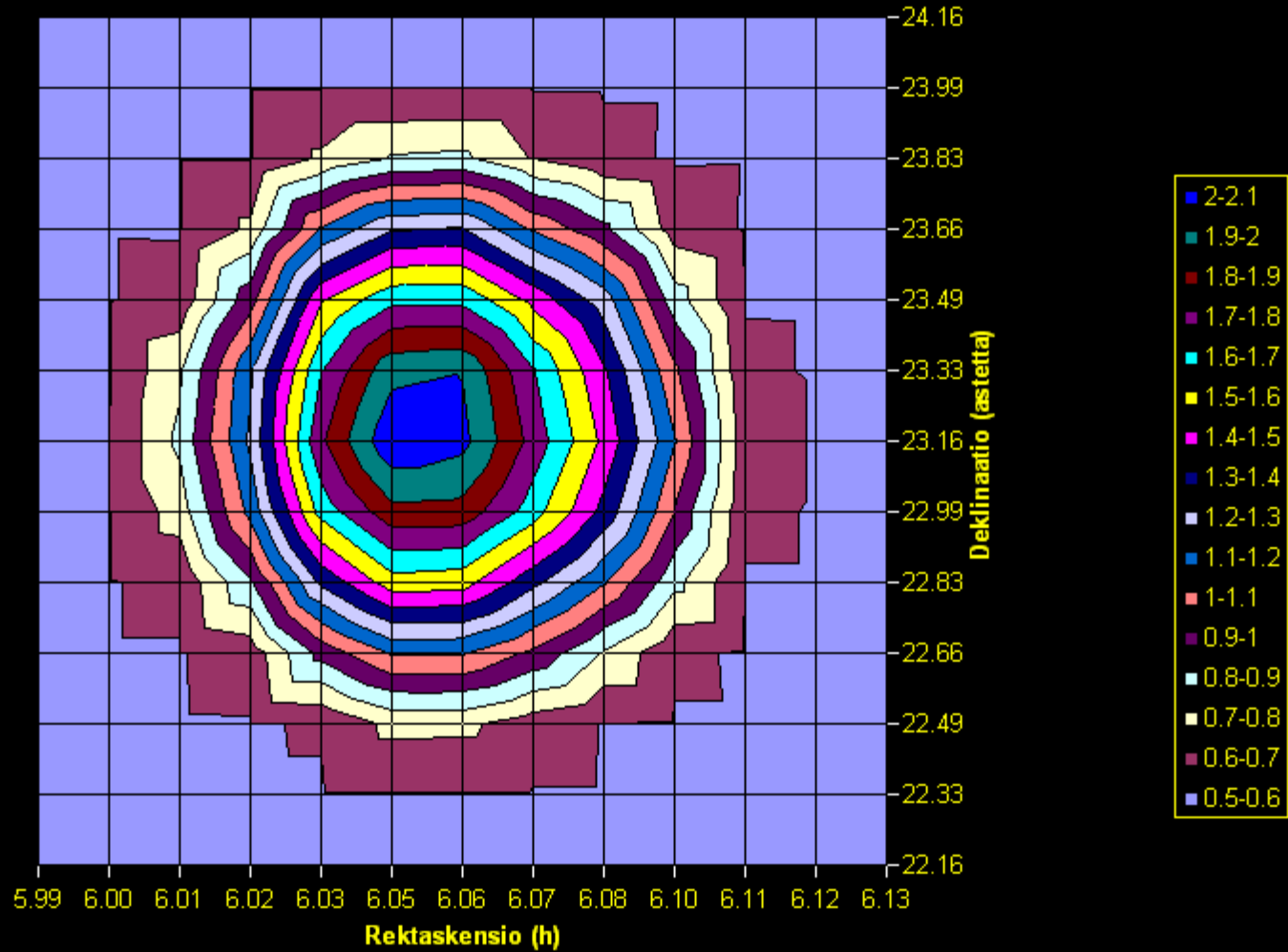
Move:
 Jog: 1 degree

Object Information

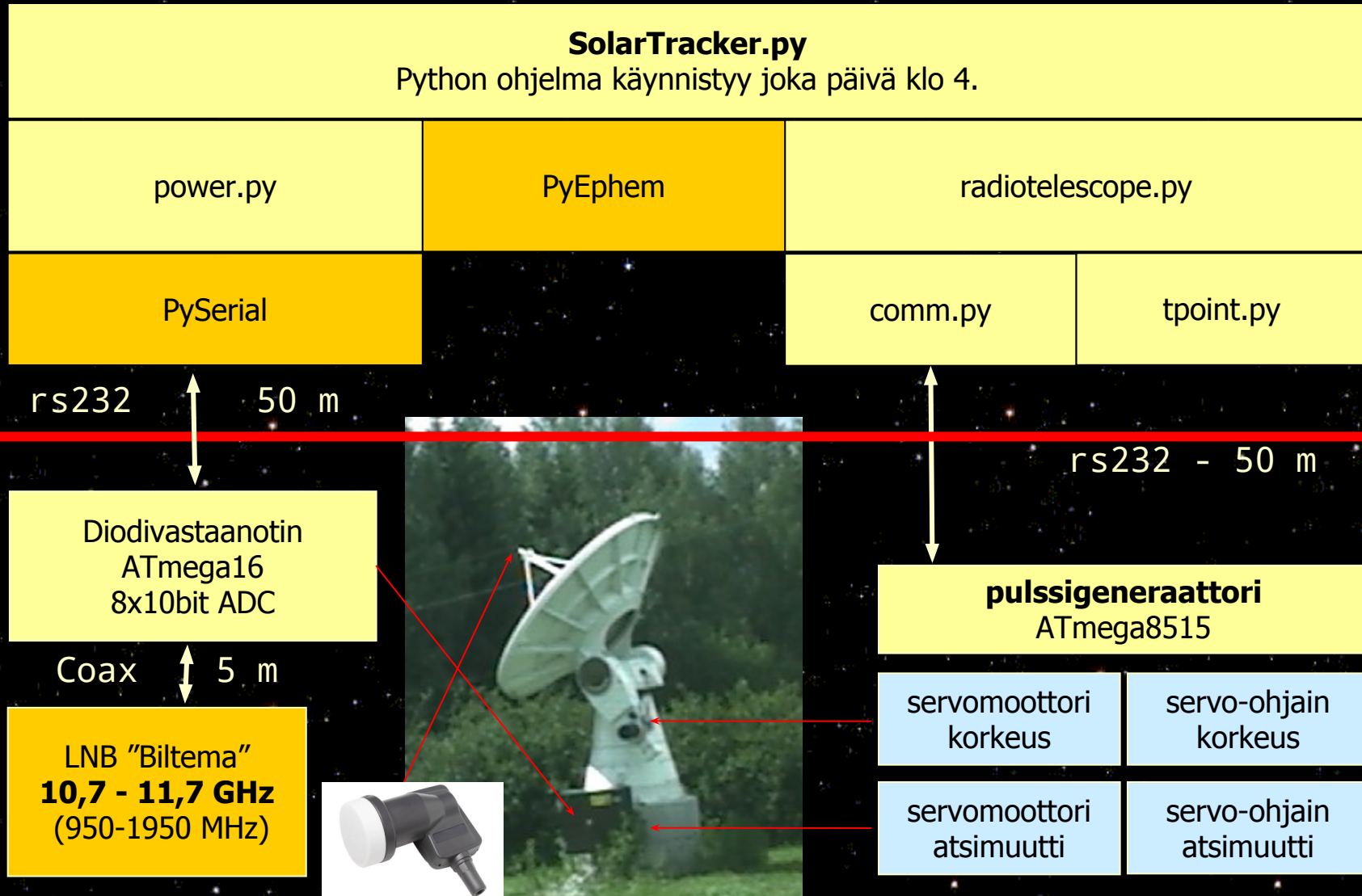
Object (1 of 2): Sun

Object name: Sun
Equatorial: RA: 08h 24m 54s Dec: +19°16'37"(current)
Equatorial 2000: RA: 08h 24m 28s Dec: +19°17'56"
Horizon: Azim: 119°55'56" Alt: +35°51'22"
Apparent angular diameter: 00°31'30"
Visibility: Rise 04:22, Set 22:16

Aurinko 3.75 GHz - 24.6.2007



Radioteleskoopin komponentit (Linux)

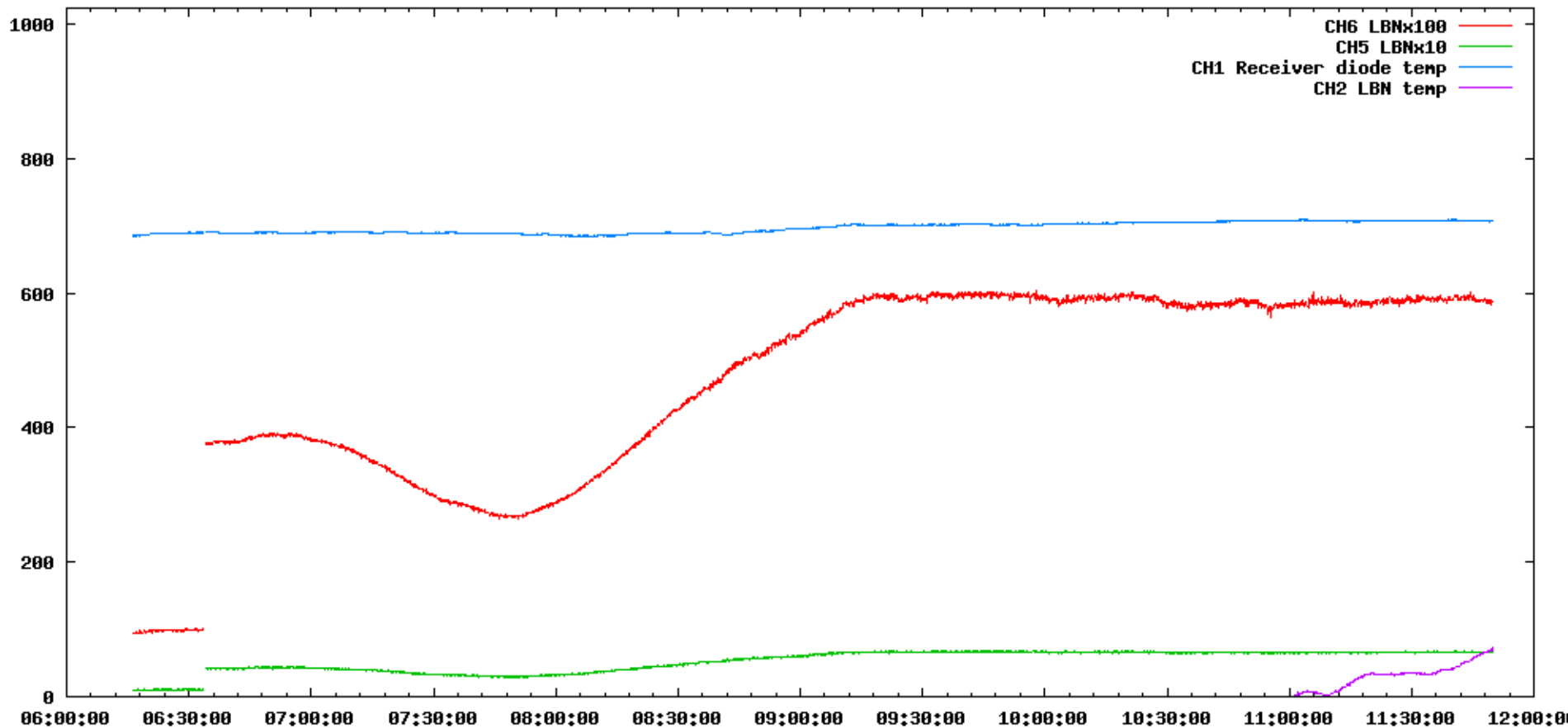


SolarTracker.py

```
...  
...  
while s.alt > math.radians(10.0):  
    o.date = ephem.now()  
    sun.compute(o)  
    r = (math.degrees(sun.ra))/180.*12.  
    d = math.degrees(sun.dec)  
    radiotelescope.slewo_rade(r,d)  
    observe9(10000)  
...  
...
```

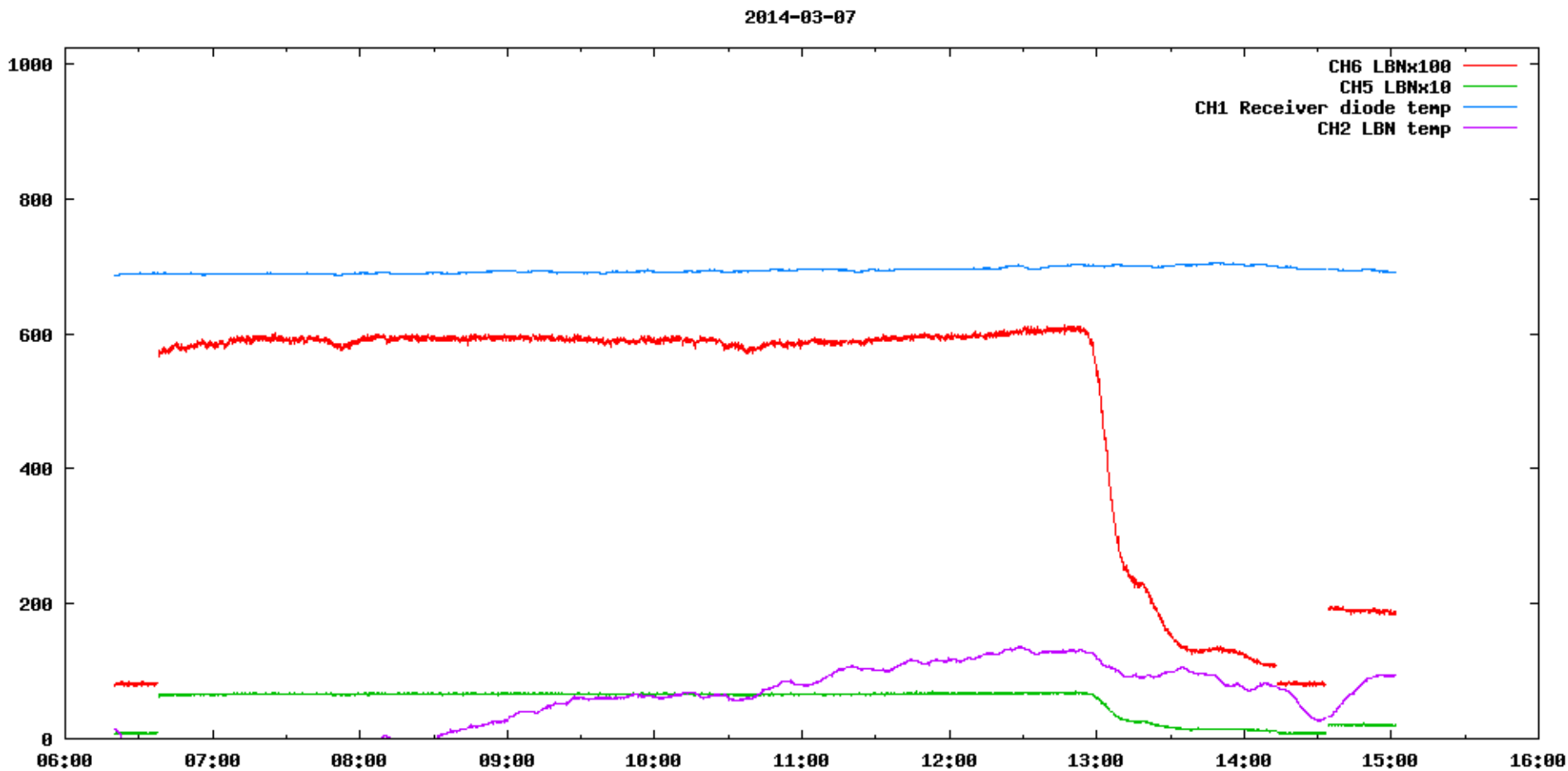
Aurinko tänään

2014-03-08



<http://murtoinen.jkl Sirius.fi:8889/sun/sun.png>

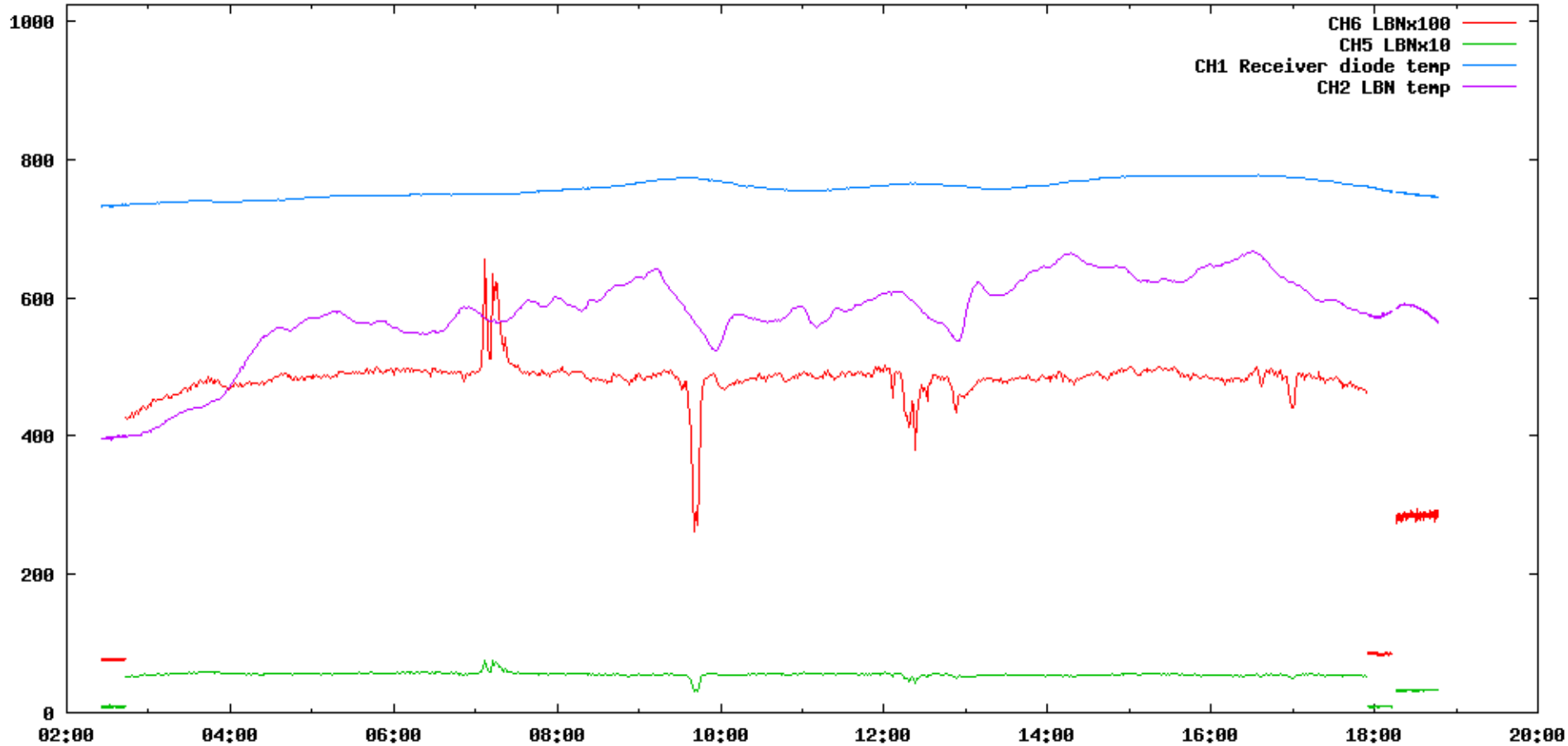
Aurinko eilen



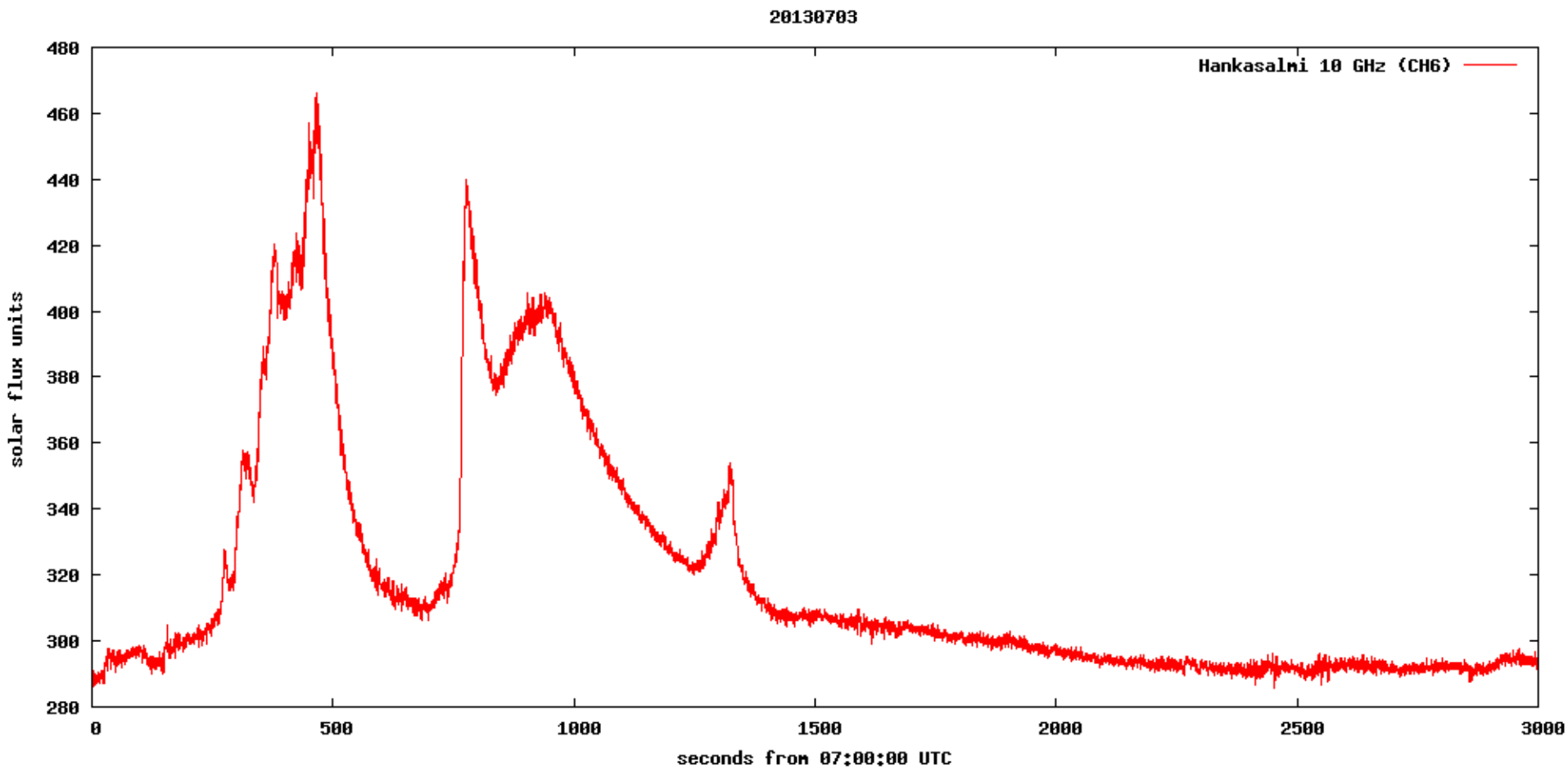
http://murtoinen.jklisirius.fi:8889/sun/sun_20140307.png

Aurinko 3.7.2013

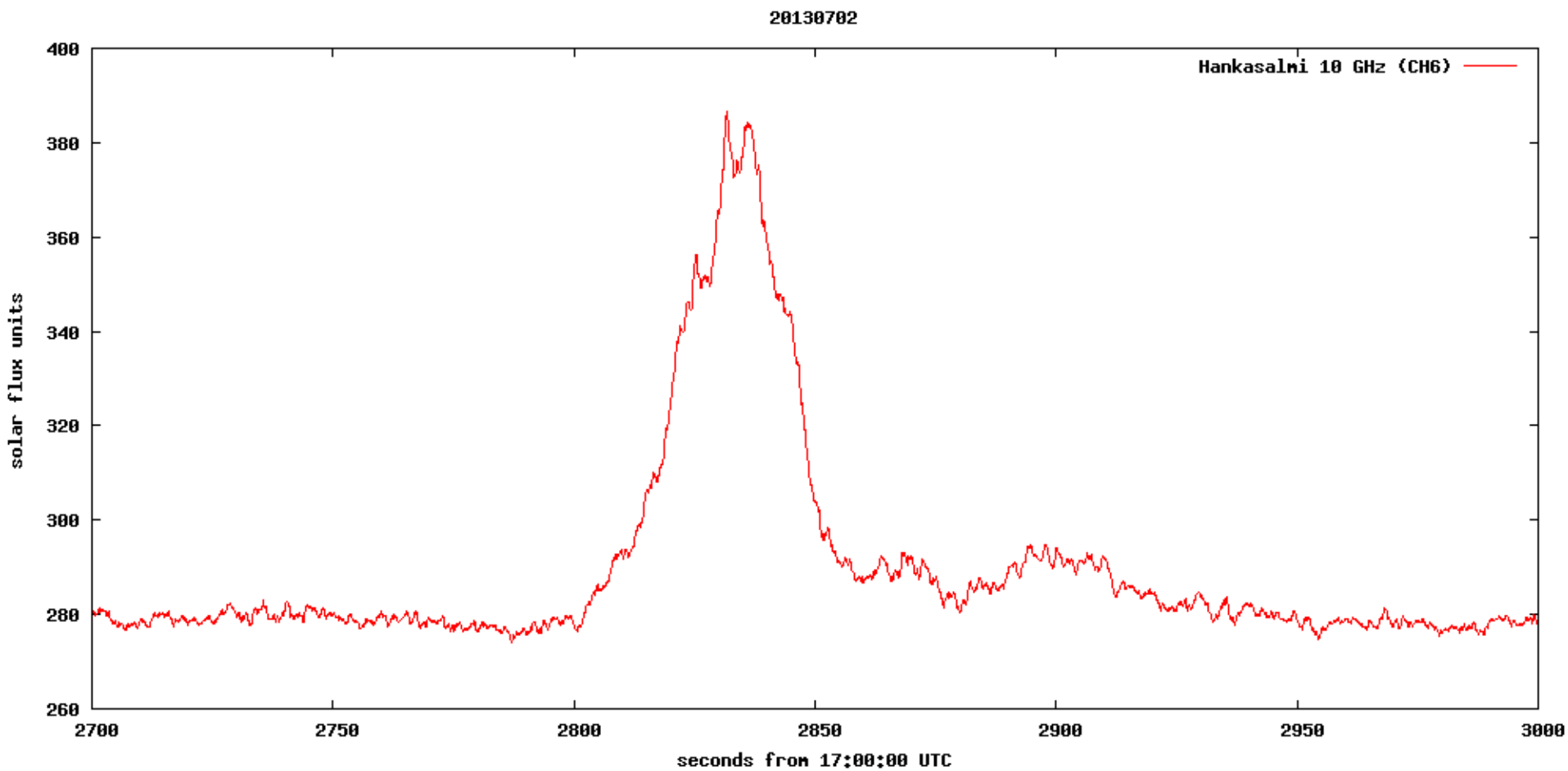
2013-07-03



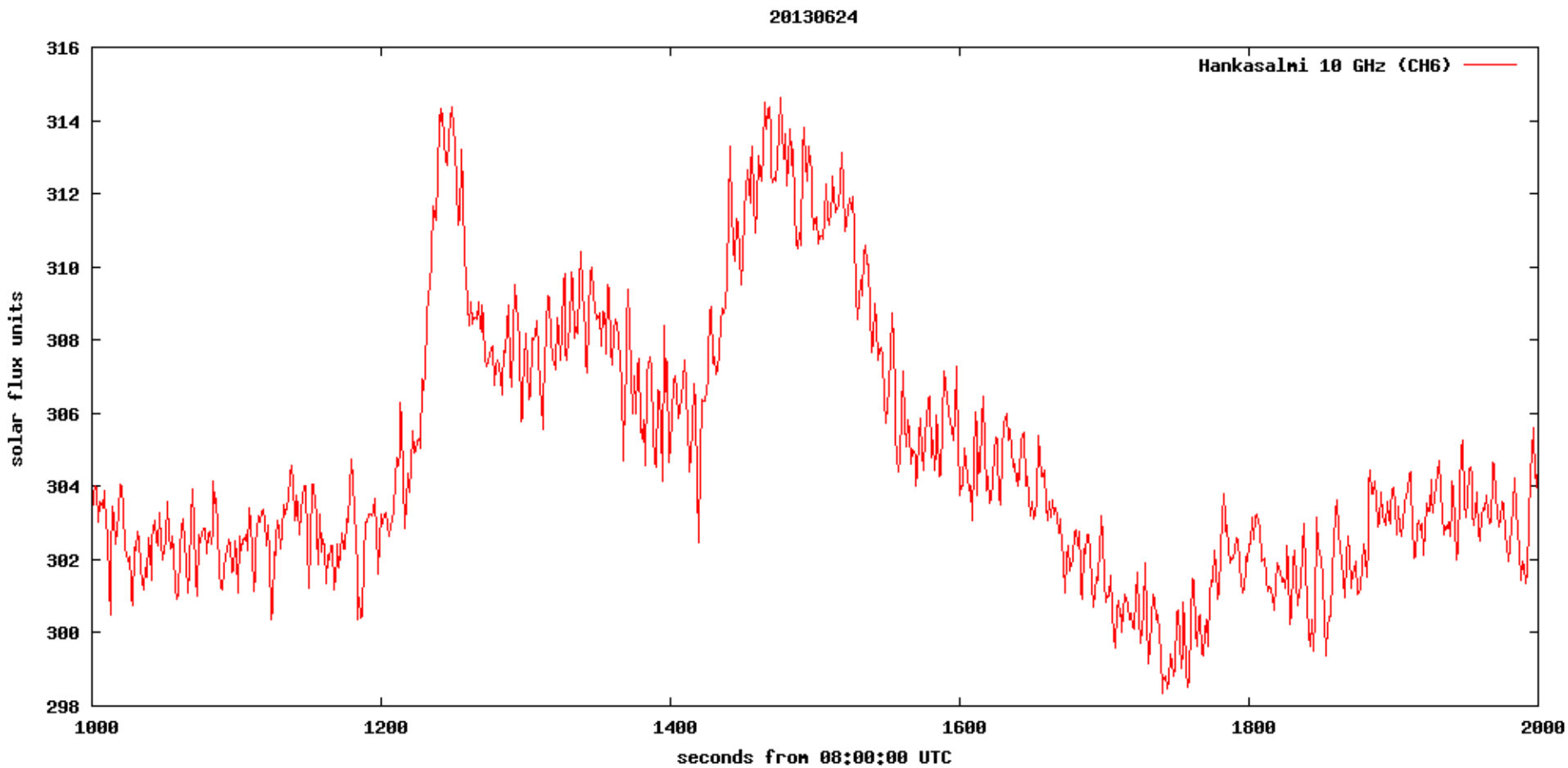
3.7.2013 07:08 UTC - M1.5



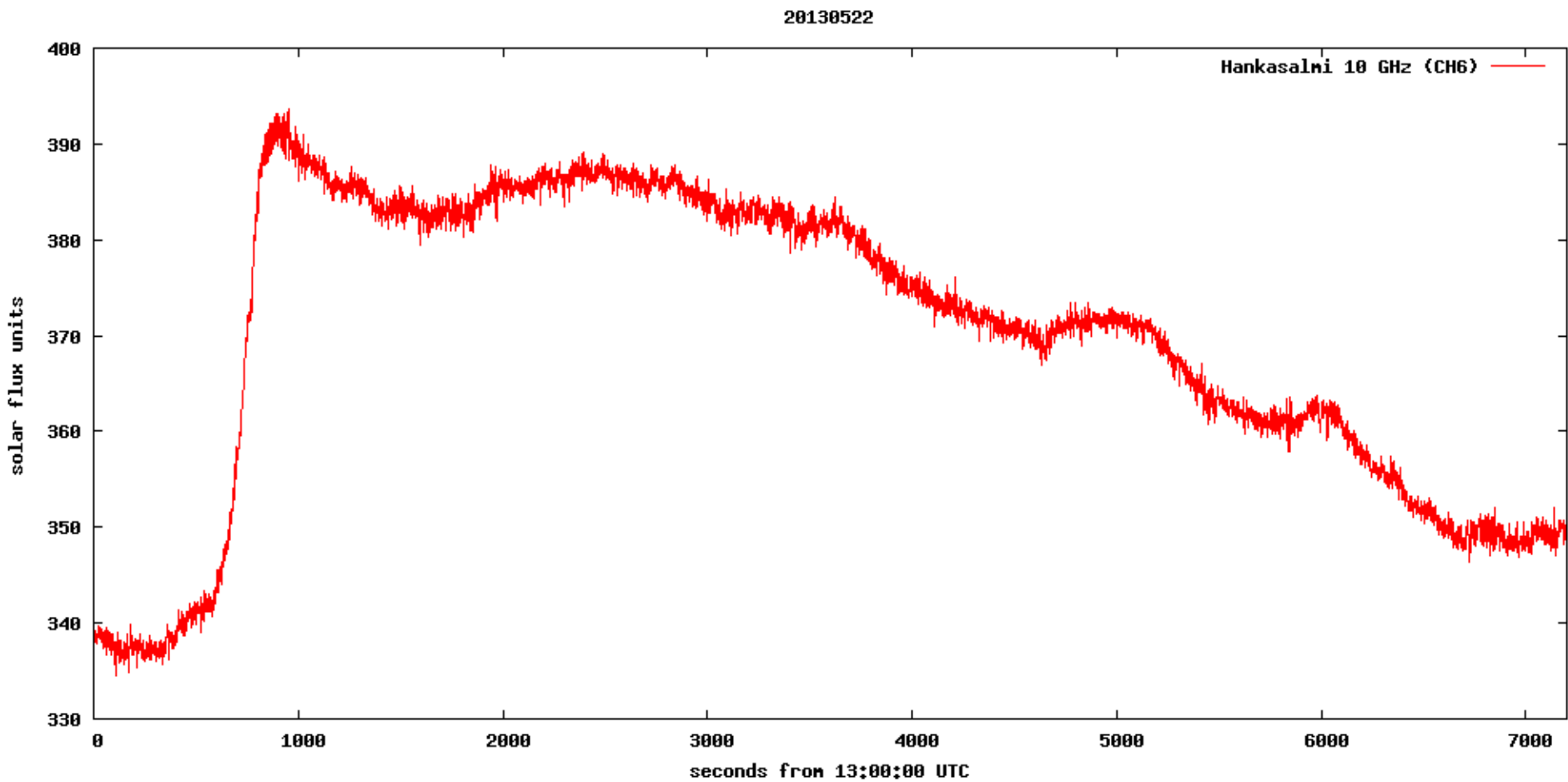
2.7.2013 17:49 UTC - C7.1



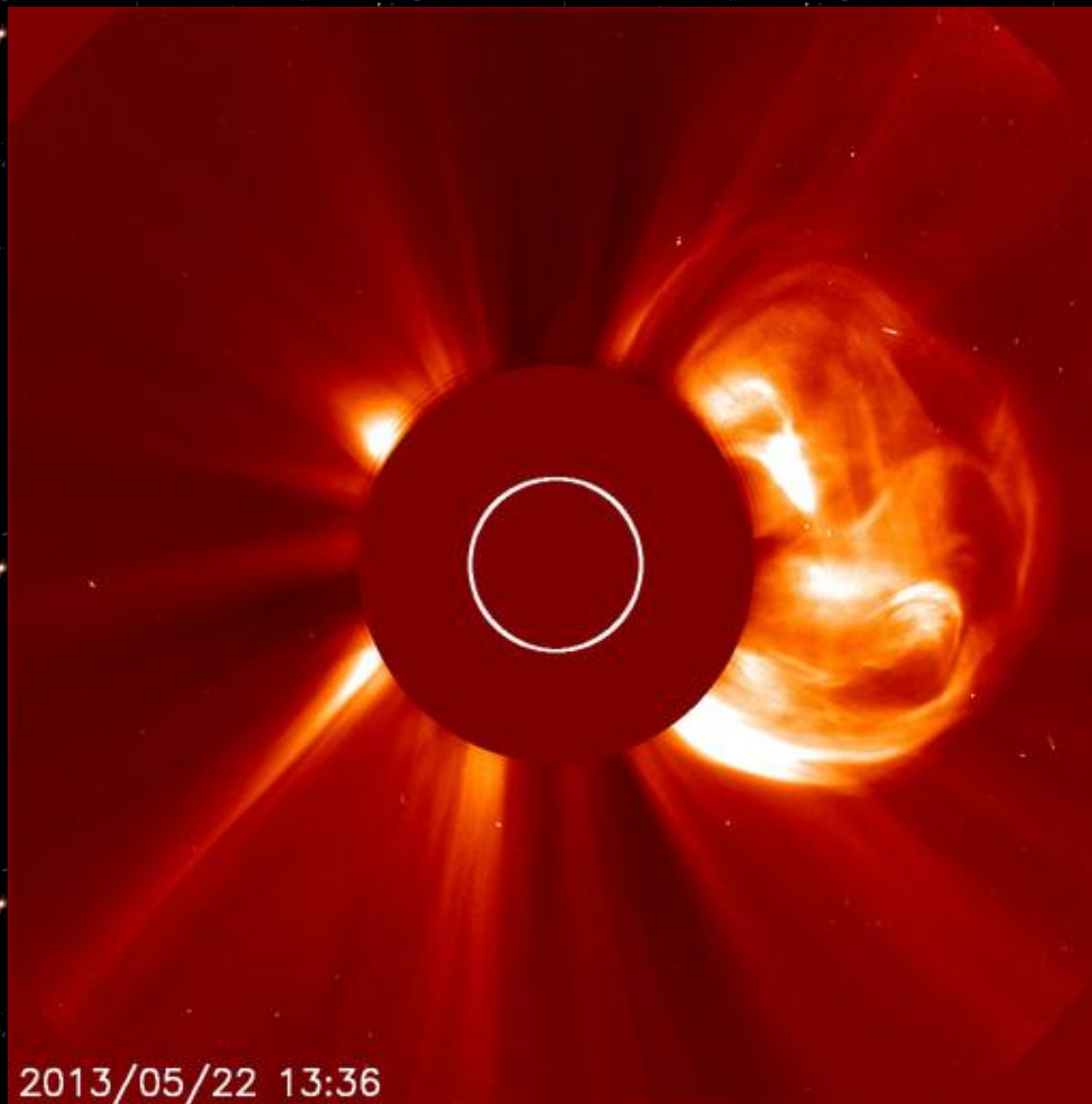
24.6.2013 08:24 UTC C3.5



22.5.2013 13:00 UTC - M5.0

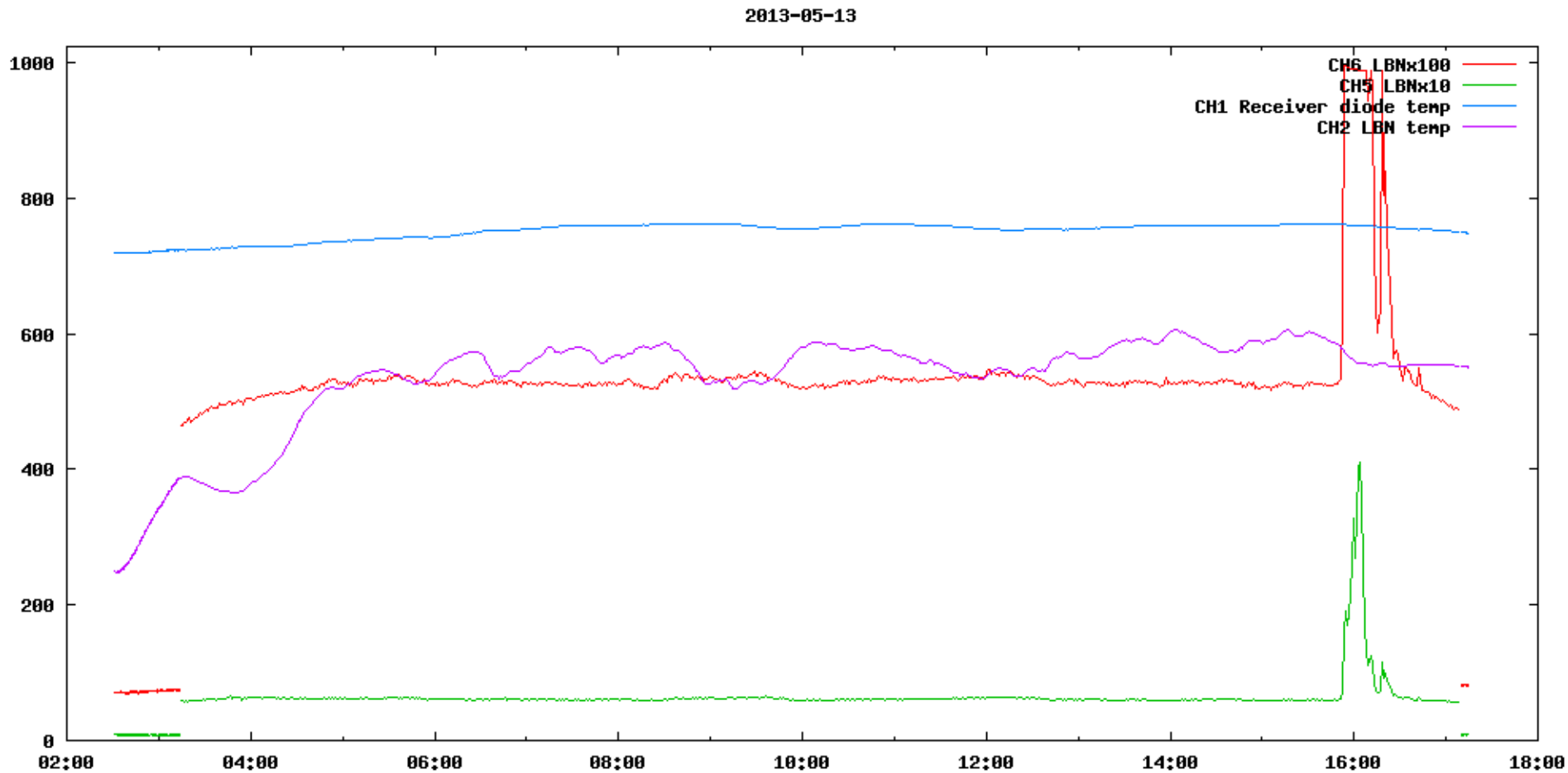


SOHO

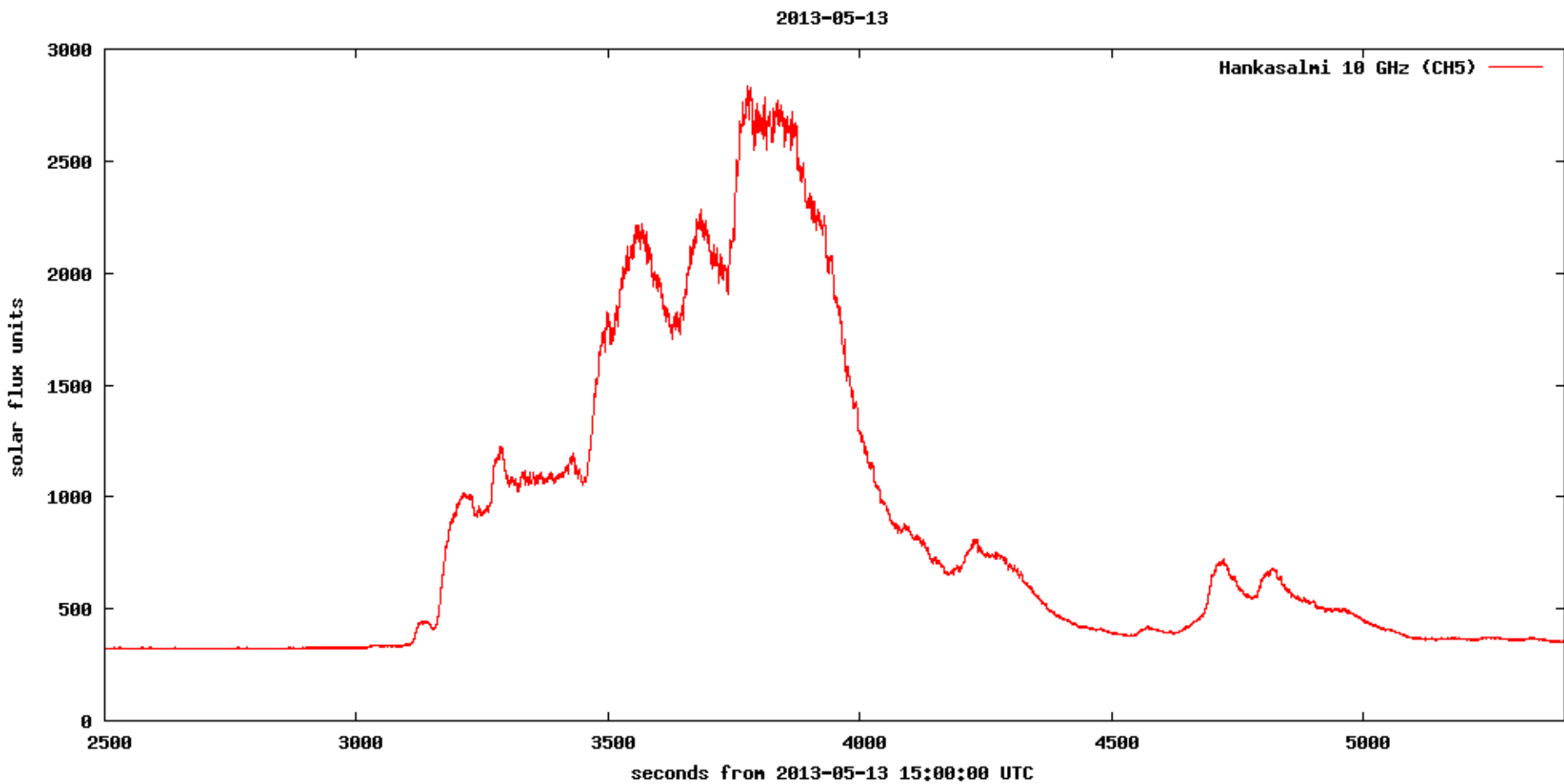


2013/05/22 13:36

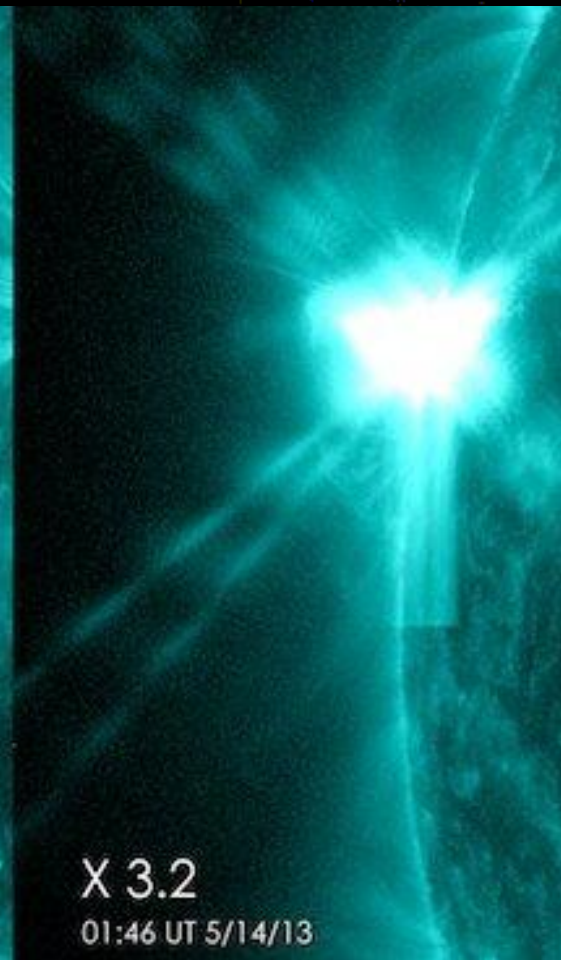
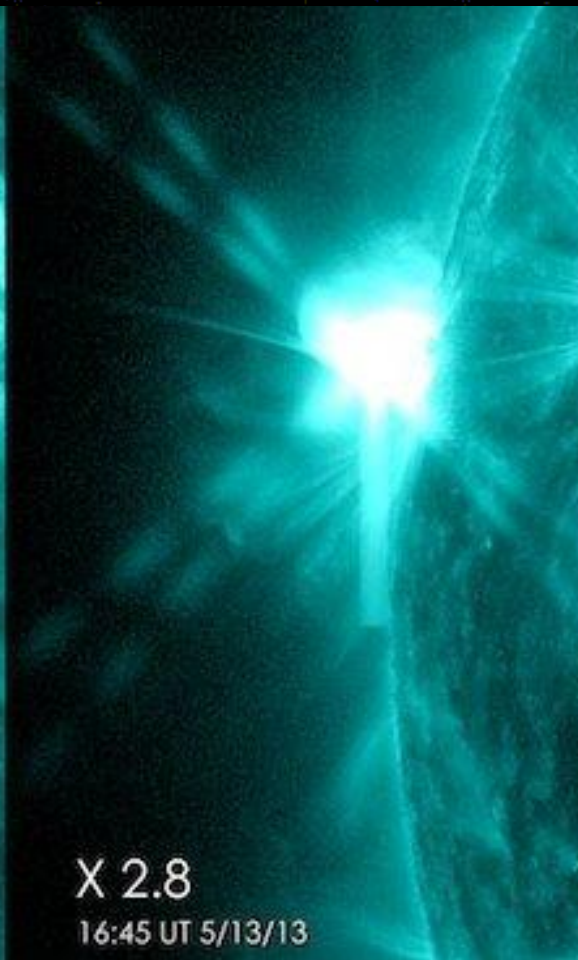
13.5.2013 16:00 UTC - X2.8 !!



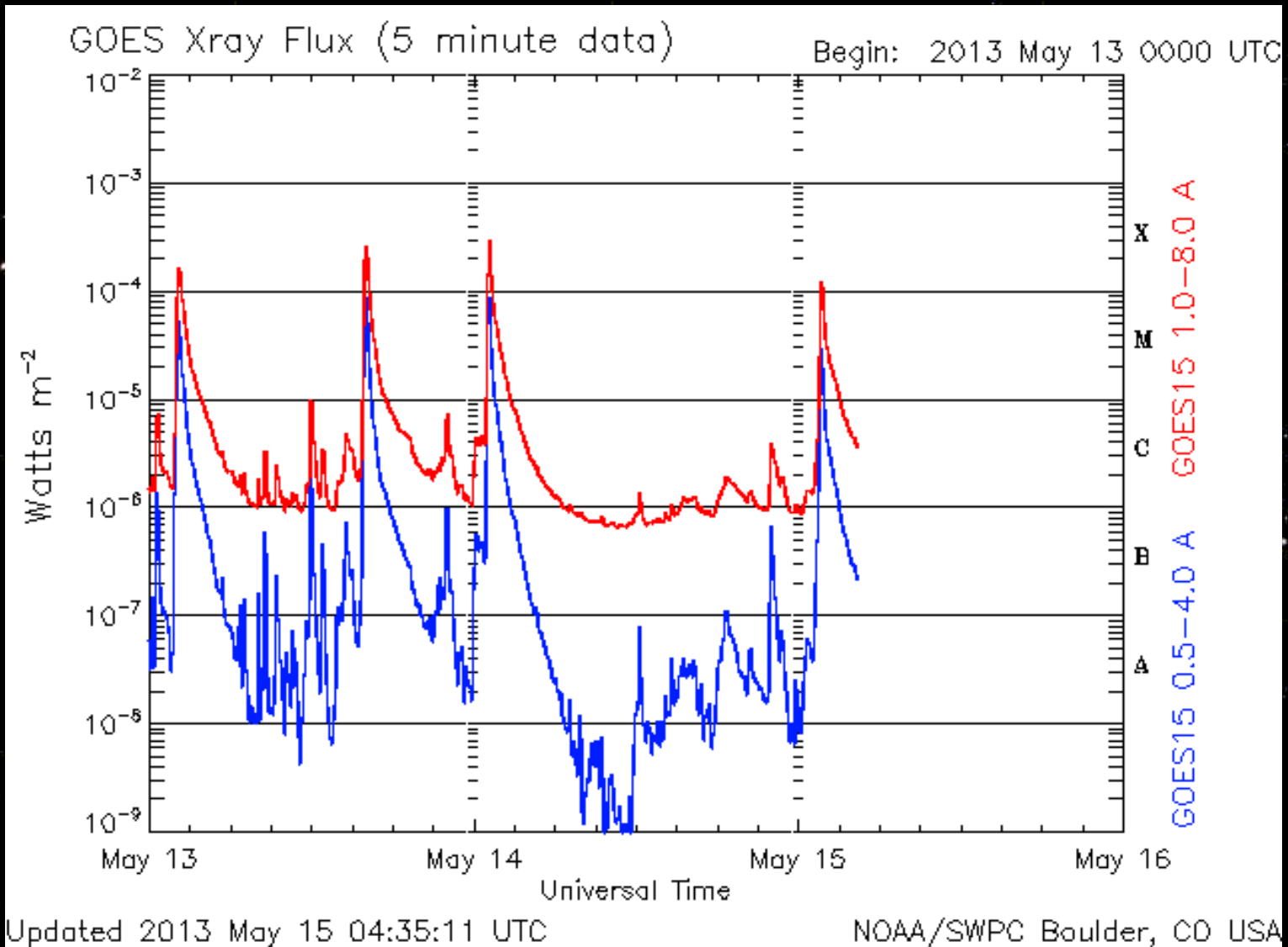
13.5.2013 16:00 UTC - X2.8 !!



SDO 13-14.5.2013



GOES Xray Flux 13.5.2013



Kysymyksiä?



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