

## 27 March - 4 April 2017 Campaign Observation Report

### **IRIS**

<http://www.lmsal.com/hek/hcr?cmd=view-recent-events&instrument=iris>

(you have to go back in time to find most images and spectra)

Contact

Wei Liu, [weiliu@lmsal.com](mailto:weiliu@lmsal.com)

### **SUMER**

Contact

Curdt Dr., Werner <[curdt@mps.mpg.de](mailto:curdt@mps.mpg.de)>

### **Hinode**

<http://hinode.nao.ac.jp/en/for-researchers/analysis-guide/>

**NVST** spectrograph and imaging system

Location: Fuxian Solar Lake observatory

Observers: Xu, Zhi. Cai, Yunfang

[xuzhi@ynao.ac.cn](mailto:xuzhi@ynao.ac.cn), [cyf2012@ynao.ac.cn](mailto:cyf2012@ynao.ac.cn)

Whom to contact: [xuzhi@ynao.ac.cn](mailto:xuzhi@ynao.ac.cn)

### **ONSET**

Location: FSO, YunNan Province, China

Observers: FangCheng, ZhangXiaoYu, Lizhen

[Fangc@nju.edu.cn](mailto:Fangc@nju.edu.cn), [xyz@ynao.ac.cn](mailto:xyz@ynao.ac.cn), [YYY@nju.edu.cn](mailto:YYY@nju.edu.cn)

Whom to contact: [lizhen@nju.edu.cn](mailto:lizhen@nju.edu.cn).

### **INAF – Catania Astrophysical Observatory**

Location: Catania (Italy)

Observers: Pierfrancesco Costa, Mariachiara Falco

pcosta@oact.inaf.it, mfalco@oact.inaf.it

Linesobserved: H $\alpha$  (656.28 nm), Continuum (656.78 nm)

Whom to contact: Paolo Romano (paolo.romano@oact.inaf.it)

### **KSO: KanzelhöhePatrol Instrument**

Location: KanzelhöheObservatory for Solar and EnvironmentalResearch, Kanzelhöhe 19, 9521 TreffenAustria, N46.6783 E13.9016

Observers: Werner Pötzi (werner.poetzi@uni-graz.at), Heinz Strutzmann (heinz.strutzmann@uni-graz.at), Dietmar Baumgartner (dietmar.baumgartner@uni-graz.at)

Linesobserved: H $\alpha$  (656.28nm, FWHM=0.07 nm, Lyot), Whitelight (546nm, FWHM=10nm), CaIIK (393.37nm, FWHM=0.3nm)

Whom to contact: werner.poetzi@uni-graz.at

KanzelhöhePatrol Instrument comprises four telescopes on a commonequatorialmounting:

1. H-alpha telescope:  $d/f = 100/2000\text{mm}$ , Lyot Band passfilterat 656.28 nm with a FWHM of 0.07 nm, 10 images/minute
2. CaIIKtelescope:  $d/f = 110/1650\text{mm}$ , LuntCaIIKfilterat 393.37 nm with a FWHM of 0.3 nm, 10 images/minute
3. Whitelighttelescope:  $d/f = 130/1950\text{ mm}$ , bandpassfilterat 546 nm with FWHM of 10nm, 3 images/minute
4. Projection telescope for sunspotdrawings:  $d/f = 110/1650$ , sundiameter of 25 cm, 1 drawing/day

Data availability:

H-alpha: <http://cesar.kso.ac.at/halpha3a>  
<ftp://download:9521treffen@ftp.kso.ac.at/Ha4M>  
<http://kancelhohe.uni-graz.at/halpha.php>  
<http://swe.ssa.esa.int/web/guest/kso-federated>

Whitelight: <http://cesar.kso.ac.at/phokada>  
<ftp://download:9521treffen@ftp.kso.ac.at/Phoka>  
<http://kancelhohe.uni-graz.at/wl.php>  
<http://swe.ssa.esa.int/web/guest/kso-federated>

Whitelight: <http://cesar.kso.ac.at/caiia>  
<ftp://download:9521treffen@ftp.kso.ac.at/Call>

<http://kancelhohe.uni-graz.at/caii.php>

## Ondrejov (HSFA2)

Location: Astronomical Institute of the Academy of Sciences of the Czech Republic,  
Ondřejov observatory : 49.90914 N, 14.78134 E

Dates: 27.03.2017 – 5.04.2017

Observers: Maciej Zapior, Yuriy Kupryakov

[maciej.zapior@asu.cas.cz](mailto:maciej.zapior@asu.cas.cz), [kupry@asu.cas.cz](mailto:kupry@asu.cas.cz)

Lines observed: Ca II K, H $\beta$ , Mg I (5167.327, 5172.698 Å), H $\alpha$ , Ca IR 8542 Å

Whom to contact: [maciej.zapior@asu.cas.cz](mailto:maciej.zapior@asu.cas.cz), [kupry@asu.cas.cz](mailto:kupry@asu.cas.cz)

Data availability: <http://helios.asu.cas.cz/spectra/?year=2017&date=170328&camera=sj&size=80&sort=a>

## USET

Instrument: Uccle Solar Equatorial Table (see details: <http://www.sidc.be/uset/usetpres.php>)

Location: Uccle (Brussels), Belgium

Dates: 27-03-2017 to 04-04-2017

Contact: [frederic.clette@oma.be](mailto:frederic.clette@oma.be), [laurent.dolla@oma.be](mailto:laurent.dolla@oma.be), [emil.kraaikamp@observatoire.be](mailto:emil.kraaikamp@observatoire.be)

### Filter channels

Filter	Bandpass
White light	415-573 nm (BWHM)
H $\alpha$	656.2808 $\pm$ 0.05 nm
Ca II K	393.37 $\pm$ 0.27 nm

### Summary of the data

Two parallel acquisitions were made (covering the full Sun):

- Synoptic (minimum 4 images/hour in conditions of “good” sky quality): all 3 channels (data available in the archive: <http://www.sidc.be/data/uset/> or with <http://sidc.be/uset/searchForm.php>)
- Ludicrous Mode ( $\approx$ 3.7 images/s): H $\alpha$  and Ca II K (6 TB of compressed data available at <http://www.sidc.be/usetHOP0334/>; a calibrated subset at 10-s cadence will be provided as soon as possible)
- Observers
- AYD: Aydin Ergen      BAB: Baudouin Bukasa      OPO: Olena Podlachikova

- EMK: Emil Kraaikamp      FCE: FrédéricClette    OLB: Olivier Boulvin    OLM: Olivier Lemaître
- Quality
- 0: no obs.    1: poor    2: fair    3: good    4: very good    5:exceptionnal
- AM – PM
- AM: from 08h00 until 13h00 (CET)
- PM: from 13h00 until 18h00 (CET)

### **RADIO (Belgium) ARCAS and HSRS radio spectrometers**

Location: Humain (Belgium)

Observers: Automated daily observations (07:30 – 16:00 UT)

Lines observed: Frequency range: 45 – 450 MHz (ARCAS); 275 – 1495 MHz (HSRS)

Whom to contact: christophe.marque@oma.be; Website: <http://sidc.be/humain>

### **PROBA2**

Instrument #1: **SWAP**

Location: Royal Observatory (ROB), Brussels, Belgium

Dates: 2017-Mar-28 to 2017-April-04 (returned to normal observations with nominal cadence after 4th April)

Linesobserved: EUV17.4 nm

Whom to contact:elke.dhuys@oma.be, matthew.west@observatory.be, david.berghmans@oma.be

Instrument #2: **LYRA**

Location: Royal Observatory (ROB), Brussels, Belgium

Dates: 2017-Mar-28 to 2017-April-05

Linesobserved: Lyman-alpha 120-123 nm, Herzberg 190-222 nm, Aluminium (17-80 nm + a contribution below 5 nm), Zirconium (6-20 nm + a contribution below 2 nm),

Whom to contact: marie.dominique@oma.be, matthew.west@observatory.be, david.berghmans@oma.be

The times of individualobservingcampaigns (given in UT) are givenwith the specified cadence and off-pointing. Note that the full diskremains in the field of viewat all times.

**Meudon: MSDP**

Location: Tour solaire, Meudon, France

Dates: 28-31 March, 3-4 April

Observers: RegisLecocguen, Daniel Crussaire, Brigitte Schmieder

Regis.lecocguen@obspm.fr, daniel.crussaire@obspm.fr,brigitte.schmieder@obspm.fr

Linesobserved: Halpha and Ca II 8542

Whom to contact: brigitte.schmieder@obspm.fr, pierre.mein@obspm.fr

**Pic-du-Midi CLIMSO**

<https://climso.fr/>

Location:, Pic du midi de Bigorre, France

N 42° 56' 11" ; E 0° 08' 34" Altitude 2876 m

Dates: 2017-03-28 ; 2017-03-29 ; 2017-03-30 ; 2017-03-31 ; 2017-04-03

Observersatthose dates: Joël Guignard, Maurice Audejean, Sylvain Rondi, Isabelle Rondi, Laurent Koechlin

joel.guignard@wanadoo.fr, m-audejean@wanadoo.fr, sylvain.rondi@gmail.com

Linesobserved:

$\lambda= 393.3 \Delta\lambda=0.25$  instrument L2 - solardisk in Ca II

$\lambda= 656.28 \Delta\lambda=0.25$  instrument C1 -prominences in H- $\alpha$ , solarcirconference, from 1.0 to 1.2 r0, coronagraph, aperture 20 cm

$\lambda= 656.28 \Delta\lambda=0.05$  instrument L1 - solardisk in H- $\alpha$

$\lambda=1083.0 \Delta\lambda=0.25$  instrument C2 - prominences in He I solarcirconference, from 1.0 to 1.2 r0, coronagraph, aperture 20 cm

Contact persons: Laurent.koechlin@irap.omp.eu, Arturo.Lopezariste@irap.omp.eu

**SST (Canary Island)**

**CHROMIS and CRISP**

[david.buhler@astro.su.se](mailto:david.buhler@astro.su.se)

**GREGOR (Canary Island)**

Location : ObservaqtoriodelTeide, Tenerife

N 28°18' 7" W16° 30' 39" Altitude 2390 m

Dates : 2017-03-28, 2017-03-29, 2017-04-02, 2017-04-03, 2017-04-04

Observer atthosedays : Horst Balthasar, Carsten Denker

Instruments : GRIS at $\lambda$ = 1083 nm, HiFI G-band and blue continuum at 450 nm

contactperson : Horst Balthasar <hbalthasar@aip.de>

<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec) X= Y=</b>	<b>Number of observations</b>	<b>Comments</b>
<b>INAF - OAcT</b> paolo.romano@oact.inaf.it	27 March	06:43	10:50	656.28 (Ha)	Full disk	26	Weather: clear Seeing: good Eruption:-
<b>INAF - OAcT</b> paolo.romano@oact.inaf.it	27 March	07:02	11:02	656.78 (continuum)	Full disk	5	Weather: clear Seeing: good Eruption:-
<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>
27-03-2017	White light	06:42:10	16:30:00	46	AM : BAB PM: OLB	3	
	H $\alpha$	07:37:57	16:39:43	116601			
	Ca II K	07:37:14	16:38:45	74449			

Instrument/Mission/Ground-Based Observatory	Observing Day	Beginning Time (UTC)	End Time (UTC)	Lines (nm)	Pointing (arcsec) X= Y=	Number of observations	Comments
<b>NVST</b> xuzhi@ynao.ac.cn  cyf2012@ynao.ac.cn	28-Mar	3:47	4:20	H $\alpha$ spectrum	target:12644 (raster 90") old scanning system		Weather cloudy – rain
		4:25	7:16	H $\alpha$ spectrum	target:12644 (raster 90") old scanning system		Weather cloudy – rain
		7:43	8:20	Imaging system: H $\alpha$ center, TiO	target:12644		Weather cloudy – rain
<b>ONSET</b> lizhen@nju.edu.cn	28 March	01:27	07:10	656.3 (0, $\pm$ 0.05) 360 425	AR12644	600	Weather: cloudy – rain Seeing: bad Eruption in active region
<b>KSO</b> <b>H-alpha Full Disc</b> <b>2048x2048@12bit</b>	28 March	05:37	16:56	656.3	0 0	6390	Clear Sky, 12 hours sunshine Seeing: excellent Subflare 7:33, AR 2645
<b>KSO</b>	28 March	05:37	16:30	393.3	0 0	616	Clear Sky, 12 hours sunshine



<b>CallK Full Disk</b> <b>2048x2048@12bit</b>							Seeing: excellent Subflare 7:33, AR 2645
<b>KSO</b> <b>Whitelight Full Disk</b> <b>2048x2048@12bit</b>	28 March	05:37	16:56	546	0 0	862	Clear Sky, 12 hours sunshine Seeing: excellent Subflare 7:33, AR 2645
<b>GREGOR</b> <b>GRIS</b>	28 March	08:40	09:10	1083	-730 -105 NOAA 12645 p	1 scan	R <sub>0</sub> < 10 cm
<b>GREGOR</b> <b>HiFi</b>	28 March	08:40	09:13	450 G-band	-730 -105 NOAA b12645 p	100	
<b>Ondrejov HSFA 2</b> HOP 334 program A2 (b): Filament on-disc in AR 12644	28 March	07:19	07:48	393.4 486.1 517.3 656.3	-254" 320"	1039	Weather Seeing 2-4" Eruption
<b>Ondrejov HSFA 2</b> HOP 334 program A1 (a,b,c,d): Prominenceat NE limb	28 March	08:54	13:38	393.4 486.1 517.3 656.3	-693" 716"	7455	Weather Seeing 2-4" Eruption

<b>Ondrejov HSFA 2</b> HOP 329 ALMA coordination	28 March	14:19	14:24	393.4 486.1 517.3 656.3 854.2	-196" 346"	166	Weather Seeing 2-4" Eruption
<b>USET</b>							
Date	Filter	Obs. begin	Obs. end	Number of images	Observers	Quality	Remarks
28-03-2017	White light	07:34:20	17:00:00	37	AM: BAB PM: EMK	AM:2 PM:3	
	H $\alpha$	07:42:50	17:00:15	84638			
	Ca II K	07:42:46	17:00:14	98671			
<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec)</b> X= Y=	<b>Number of observations</b>	<b>Comments</b>
<b>ARCAS/HSRS</b>	28 March	All day	All day	N/A	Full Sun		Noise storm, intensifies after 11:30 UT
<b>SWAP</b>	28 March	00:00	07:00	17.4	0 0	Cadence 110s	
<b>LYRA Unit 2</b>	<b>28 Mar – 05 Apr</b>	<b>continuous</b>	<b>continuous</b>	<b>17- 80 + &lt;5, 6- 20 + &lt;2,</b>	<b>(off pointed as for SWAP times</b>	<b>Cadence 50ms</b>	<b>Observing continuously, observed all M-Flares in Aluminium and</b>

					above)		Zirconium (significant spectral degradation)
<b>MSDP/Tour Solaire de Meudon (France)</b>	28 March	07:44		854.2	AR 12644	30	Weather fine Seeing normal
	28 March	08:20		854.2	Filament	30	Weather fine Seeing normal Clouds
	28 March	08:40		656.3	Prominence E44	30	fine
	28 March	14:00		656.3	AR 12644	30 x 2	fine
	28 March	15:37		656.3	Filament N25 and S15	30	Fine
<b>CLIMSO-L2</b>	28 March	10:04	15:06	393.3 Ca II	whole disk	229	1 image per minute, weather permitting
<b>CLIMSO-C1</b>	28 March	10:04	15:53	656.3	prominences, 360°	179	1 image per minute, weather permitting
<b>CLIMSO-L1</b>	28 March	10:04	15:06	656.3	whole disk	228	1 image per minute, weather permitting
<b>CLIMSO-C2</b>	28 March	10:04	15:06	He I 1083.0	prominences, 360°	203	1 image per minute, weather permitting



<b>INAF - OAcT</b> paolo.romano@oact.inaf.it	29 March	06:10	11:00	656.28	Full disk	27	Weather: clear Seeing: good Eruption:-
<b>INAF - OAcT</b> paolo.romano@oact.inaf.it	29 March	07:02	11:03	656.78	Full disk	5	Weather: clear Seeing: good Eruption:-
<b>KSO H-alpha</b> <b>Full Disc</b> <b>2048x2048@12bit</b>	29 March	05:57	13:34	656.3	0 0	3766	Sunny/Cloudy, 10 hours sunshine Seeing: good Subflare 6:01, 6:56, AR 2645
<b>KSO CaIIK</b> <b>Full Disk</b> <b>2048x2048@12bit</b>	29 March	05:57	14:15	393.3	0 0	306	Sunny/Cloudy, 10 hours sunshine Seeing: good Subflare 6:01, 6:56, AR 2645
<b>KSO Whitelight</b> <b>Full Disk</b> <b>2048x2048@12bit</b>	29 March	05:58	14:15	546	0 0	520	Sunny/Cloudy, 10 hours sunshine Seeing: good Subflare 6:01, 6:56, AR 2645

<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 monitoring	29 March	08:50	09:09	393.4 486.1 517.3 656.3 854.2	-606" -82"	270	Weather Seeing 2-4" Eruption
<b>USET</b>							
Date	Filter	Obs. begin	Obs. end	Number of images	Observers	Quality	Remarks
29-03-2017	White light	06:36:41	06:36:45	3	AM:OLM PM:OPO	2	Bad weather
		13:43:30	13:43:36	3			
	H $\alpha$	06:37:07	06:44:33	1604			
	Ca II K	06:37:02	06:44:45	1671			
<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec)</b> X= Y=	<b>Number of observations</b>	<b>Comments</b>
<b>SWAP</b>	29 Mar	00:00	07:00	17.4	0 0	Cadence 110s	
<b>LYRA Unit 3</b>	<b>29March – 02Ap</b>	<b>10:14 29 Mar</b>	<b>18:30 02 Apr</b>	<b>17- 80 + &lt;5, 6- 20 + &lt;2,</b>	<b>(off pointed as for SWAP times above)</b>	<b>Cadence 50ms</b>	

<b>MSDP/Tour Solaire de Meudon (France)</b>	29 March	11:34		656.3	AR 12645	30	fine on-going analysis with IRIS
	29 March	13:26-14:47		656.3	filament	30 x 3	fine
	29 March	15/00		656.3	AR 12644	30	With clouds
<b>CLIMSO-L2</b>	29 March	06:51	17:16	393.3	whole disk	544	1 image per minute, weather permitting
<b>CLIMSO-C1</b>	29 March	08:31	13:53	656.3	prominences, 360°	120	1 image per minute, weather permitting
<b>CLIMSO-L1</b>	29 March	06:51	17:16	656.3	whole disk	535	1 image per minute, weather permitting
<b>CLIMSO-C2</b>	29 March	07:11	13:53	393.3	prominences, 360°	87	1 image per minute, weather permitting
<b>GREGOR GRIS</b>	29 March	08:40	09:11	1083	-637 -85 NOAA 12645 f	1 scan	$R_0 = 5 - 10$ cm
<b>GREGOR HiFi</b>	29 March	08:40	09:12	450 G-band	-637 -85 NOAA 12645 f	100	

<b>INAF - OAcT</b>	30 March	05:50	10:50	656.28	Full disk	22	Weather: clear Seeing: good Eruption:-
<b>INAF - OAcT</b>	30 March	06:04	10:04	656.78	Full disk	4	Weather: clear Seeing: good Eruption:-
<b>KSO H-alpha Full Disc 2048x2048@12bit</b>	30 March	06:46	16:40	656.3	0 0	4807	Clear Sky, 10 hours sunshine Seeing: good no flare
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	30 March	06:46	16:30	393.3	0 0	490	Clear Sky, 10 hours sunshine Seeing: good no flare
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	30 March	06:44	16:40	546	0 0	672	Clear Sky, 10 hours sunshine Seeing: good no flare
<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>



30-03-2017	White light	09:05:01	15:45:00	28	AM:OLM PM:EMK	3	
	H $\alpha$	09:03:22	15:57:40	91254			
	Ca II K	09:03:19	15:57:42	73550			
<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec)</b> X= Y=	<b>Number of observations</b>	<b>Comments</b>
ARCAS/HSRS	30 March	07:30	08:05	N/A	Full Sun		Several Type III bursts
ARCAS/HSRS	30 March	08:55	09:00	N/A	Full Sun		Several Type III bursts
SWAP	30 Mar	00: 00	07: 00	17.4	0 0	Cadence 110s	
SWAP	30 Mar	07: 00	09: 00	17.4	-495 495	Cadence 30s	
SWAP	30 Mar	09: 00	19: 15	17.4	0 0	Cadence 110s	
SWAP	30 Mar	19:15	21: 00	17.4	0 495	Cadence 30s	
<b>MSDP/Tour Solaire de Meudon (France)</b>	30 March	07:29_08:30		656.3	Prominence NW40	100	fine
	30 March	09:05-13:00		656.3	AR 12644	100	fine

	30 March	13:30-14:30		656.3	AR 12645	1000	fine
	30 March	14:40-15:05		656.3	Prominence NW 40	30	fine
	30 March	15:23-15:30		656.3	AR 11644	10	clouds
<b>CLIMSO-L2</b>	30 March	07:11	11:58	393.3	whole disk	263	1 image per minute, weather permitting
<b>CLIMSO-C1</b>	30 March					0	cirrus clouds
<b>CLIMSO-L1</b>	30 March	07:11	11:58	656.3	whole disk	263	1 image per minute, weather permitting
<b>CLIMSO-C2</b>	30 March	07:10	07:14	393.3	prominences, 360°	4	cirrus clouds

<b>INAF - OAcT</b>	31 March	05: 54	11:00	656.28	Full disk	32	Weather: clear Seeing: good Eruption:-
<b>INAF - OAcT</b>	31 March	06:04	11:04	656.78	Full disk	6	Weather: clear Seeing: good Eruption:-
<b>KSO H-alpha Full Disc 2048x2048@12bit</b>	31 March	05:59	16:00	656.3	0 0	5786	Sunny, 12 hours sunshine Seeing: good Subflare 6:08, 6:19, AR 2645
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	31 March	05:59	16:00	393.3	0 0	485	Sunny, 12 hours sunshine Seeing: good Subflare 6:08, 6:19, AR 2645
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	31 March	05:59	16:00	546	0 0	793	Sunny, 12 hours sunshine Seeing: good Subflare 6:08, 6:19, AR 2645

<b>Ondrejov HSFA 2</b> HOP 334 program A1 (a): Prominenceat NW limb	31 March	07:08	08:04	393.4 486.1 517.3 656.3	765" 626"	1316	Weather Seeing 2-4 " Eruption
<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 filament monitoring	31 March	08:22	10:34	393.4 486.1 517.3 656.3	-178" -59"	3475	Weather Seeing 2-4" Eruption
<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 filament monitoring	31 March	10:43	13:41	393.4 486.1 517.3 656.3 854.2	-178" -59"	5787	Weather Seeing 2-4" Eruption
<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>
31-03-2017	White light	06:58:28	11:30:00	13	AM: OLB PM:OLM	AM :3	
	H $\alpha$	07:01:03	13:18:56	36274			
	Ca II K	07:00:45	13:18:40	47406			

<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec) X= Y=</b>	<b>Number of observations</b>	<b>Comments</b>
<b>ARCAS/HSRS</b>	31 March	08:20	08:25	N/A	Full Sun		Type III burst
<b>SWAP</b>	30 – 31 Mar	21:00 30 Mar	07:00 31 Mar	17.4	0 0	Cadence 110s	
<b>SWAP</b>	31 Mar	07:00	09:00	17.4	-495 -495	Cadence 30s	
<b>SWAP</b>	31 Mar	09:00	14:00	17.4	0 0	Cadence 110s	
<b>SWAP</b>	31 Mar	14:00	19:00	17.4	-495 -495	Cadence 110s	
<b>MSDP/Tour Solaire de Meudon (France)</b>	31 March	15:13- 15:58		656.3	Prominence NW 40	60	fine
	31 March	16:05- 16:10		656.3	AR 12644	10	clouds
<b>CLIMSO-L2</b>	31 March	12:45	13:11	393.3	whole disk	20	1 image per minute, weather permitting
<b>CLIMSO-C1</b>	31 March	12:45	13:07	656.3	prominences, 360°	4	cirrus clouds
<b>CLIMSO-L1</b>	31 March	12:45	13:11	656.3	whole disk	19	1 image per minute, weather

							permitting
<b>CLIMSO-C2</b>	31 March	12:44	12:48	393.3	prominences, 360°	3	cirrus clouds

<b>INAF - OACT</b>	1 April	06: 30	11:10	656.28	Full disk	29	Weather: clear Seeing: good Eruption:-
<b>INAF - OACT</b>	1 April	07:15	11:15	656.78	Full disk	5	Weather: clear Seeing: good Eruption:-
<b>KSO H-alpha Full Disc 2048x2048@12bit</b>	1 April	05:52	16:15	656.3	0 0	4165	Sunny/Cloudy, 10 hours sunshine Seeing: good no flare
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	1 April	05:52	16:11	393.3	0 0	390	Sunny/Cloudy, 10 hours sunshine Seeing: good no flare
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	1 April	05:53	16:14	546	0 0	616	Sunny/Cloudy, 10 hours sunshine Seeing: good no flare

<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 filament monitoring	01 April	10:12	10:43	393.4 486.1 517.3 656.3 854.2	57" -41"	1188	Weather Seeing 2-4" Eruption
<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 filament	01 April	10:52	11:55	393.4 486.1 517.3 656.3 854.2	58" -48"	1447	Weather Seeing 2-4" Eruption
<b>Ondrejov HSFA 2</b> HOP 334 AR 12645 filament	01 April	12:04	12:54	393.4 486.1 517.3 656.3 854.2	69" -48"	1475	Weather Seeing 2-4" Eruption
<b>Ondrejov HSFA 2</b> HOP 334 A1: Prominence NW limb	01 April	13:06	13:12	393.4 486.1 517.3 656.3	942" 351"	172	Weather Seeing 2-4" Eruption



<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>
01-04-2017	White light	-	-	-	AM:OLM PM:OLB	0	No data due to bad weather
	H $\alpha$	-	-	-			
	Ca II K	-	-	-			
<b>Instrument/Mission/Ground-Based Observatory</b>	<b>Observing Day</b>	<b>Beginning Time (UTC)</b>	<b>End Time (UTC)</b>	<b>Lines (nm)</b>	<b>Pointing (arcsec) X= Y=</b>	<b>Number of observations</b>	<b>Comments</b>
<b>ARCAS/HSRS</b>	01 April	All day	All day	N/A	Full Sun		Noise storm
<b>ARCAS/HSRS</b>	01 April	10:30	10:50	N/A	Full Sun		Intense group of Type III bursts
<b>SWAP</b>	31 Mar – 01 Apr	19:00 31 Mar	04: 00 01 Apr	17.4	0 0	Cadence 110s	
<b>SWAP</b>	01 Apr	04:00	09: 00	17.4	0 -495	Cadence 110s	
<b>SWAP</b>	01 Apr	09:00	13: 00	17.4	0 0	Cadence 110s	
<b>SWAP</b>	01 Apr	13:00	17: 00	17.4	0 -495	Cadence 110s	

<b>SWAP</b>	01 Apr	17:00	21:00	17.4	0 0	Cadence 110s	
<b>SWAP</b>	01 – 02 Apr	21:00 01 Apr	08:00 02 Apr	17.4	0 -495	Cadence 110s	<b>M4.4 flare and eruption near west limb on 2017-Apr-01 with the flare maximum given at 21:48 UT, while off-pointed to the west.</b>
<b>LYRA Unit 3</b>	01- Apr	10:14 29 Mar	18:30 02 Apr	17- 80 + <5, 6- 20 + <2,	(off pointed as for SWAP times above)	Cadence 50ms	M4.4 flare on 2017-Apr-01 (flare max given at 21:48 UT).

<b>KSO H-alpha Full Disc 2048x2048@12bit</b>	2 April	05:53	16:28	656.3	0 0	3559	Sunny/Cloudy, 11 hours sunshine Seeing: good Subflare 08:02, AR 2644
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	2 April	05:54	16:27	393.3	0 0	456	Sunny/Cloudy, 11 hours sunshine Seeing: good Subflare 08:02, AR 2644
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	2 April	05:53	16:28	546	0 0	661	Sunny/Cloudy, 11 hours sunshine Seeing: good Subflare 08:02, AR 2644
<b>Ondrejov HSFA 2 HOP 334 AR 12645 filament monitoring</b>	02 April	09 :55	10 :44	393.4 486.1 517.3 656.3 854.2	260" -56"	1064	Weather Seeing 2-4" Eruption
USET							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>

02-04-2017	White light	06:58:44	17:00:00	43	AM: FCE PM:AYD	2-3	
	H $\alpha$	07:20:37	17:09:03	104649			
	Ca II K	07:20:32	17:08:57	81284			
Instrument/Mission/Ground-Based Observatory	Observing Day	Beginning Time (UTC)	End Time (UTC)	Lines (nm)	Pointing (arcsec) X= Y=	Number of observations	Comments
<b>ARCAS/HSRS</b>	02 April	All day	All day	N/A	Full Sun		Noise storm
<b>ARCAS/HSRS</b>	02 April	07:50	~09:00	N/A	Full Sun		Type IIIs, high frequency continuum, Type II and Type IV bursts
<b>ARCAS/HSRS</b>	02 April	11:40	11:45	N/A	Full Sun		High frequency type III bursts
<b>ARCAS/HSRS</b>	02 April	12:55	13:00	N/A	Full Sun		High frequency continuum
<b>SWAP</b>	02 Apr	08: 00	12: 00	17.4	0 0	Cadence 110s	<b>M5.3 flare and eruption</b> near west limb on 2017-Apr-02 with the flare given from 7.50 to 08:13 UT, (initially off-pointed and then changed to sun centered during flare)

<b>SWAP</b>	02 Apr	12:00	19: 00	17.4	0 -495	Cadence 110s	<p><b>M2.3 flare</b> (max. at 13:00 UT) <b>on the solarwest-limb,while off-pointed to the west.</b></p> <p><b>M2.1 flare</b> (max. at 18:38 UT) <b>on the solarwest-limb,while off-pointed to the west.</b></p>
<b>SWAP</b>	02 – 03 Apr	19: 00 02 Apr	04: 00 03 Apr	17.4	0 0	Cadence 110s	<p><b>M5.7 flare and eruption</b> in western hemisphere on 2017-Apr-02 at 20:33 UT.</p> <p>M1.2 flare on 2017-Apr-03 at 01:05 UT.</p>
<b>LYRA Unit 3</b>	02 April	10:14	18:30	17- 80 + <5, 6- 20 + <2,	(off pointed as for SWAP times above)	Cadence 50ms	<p><b>M5.3 flare</b> on 2017-Apr-02 (flare max at 08.02 UT)</p> <p>M2.3 flare on 2017-Apr-02 (maximum at 13:00 UT)</p>
<b>LYRA Unit 1</b>	02 Apr	18:40	19:30, 05 April	120-123, 190-222	(off pointed as for SWAP times)	Cadence 50ms	<p><b>M5.7 flare and eruption</b> in western hemisphere on 2017-Apr-02 at 20:33 UT.</p>

				17- 80 + <5, 6- 20 + <2,	above)		<b>Observed a Lyman-alpha contribution in this flare.</b>
<b>GREGOR</b> <b>GRIS</b>	02 Apr	08:18	09:30	1083	284 -69 NOAA 12645	2 scans	Seeing rather poor

<b>NVST</b>	3-April	4:20	4:50	Ha spectrum	target:12645 (raster 67" , AR filament)		Weather cloudy
		8:21	8:46	Ha spectrum	target:12645 (raster 90", East part of the AR)		Weather cloudy
<b>ONSET</b>	03April	05:22	07:38	656.3 (0,±0.05) 360 425	AR12645	244	Weather:cloudy Seeing:bad Eruption:active region
<b>INAF - OACt</b>	3 April	06: 33	09:31	656.28	Full disk	13	Weather: partially cloudy Seeing: bad Eruption:-
<b>INAF - OACt</b>	3 April	06:31	08:02	656.78	Full disk	3	Weather: partially cloudy Seeing: bad Eruption:-
<b>KSO H-alpha Full Disc</b>	3 April	05:50	13:59	656.3	0 0	4133	Sunny/Cloudy, 9 hours sunshine

<b>2048x2048@12bit</b>							Seeing: good Subflare: 06:20, 08:15,11:43, 13:07 , AR 2645
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	3 April	05:50	13:59	393.3	0 0	435	Sunny/Cloudy, 9 hours sunshine Seeing: good Subflare 06:20, 08:15,11:43, 13:07 , AR 2645
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	3 April	05:51	13:59	546	0 0	595	Sunny/Cloudy, 9 hours sunshine Seeing: good Subflare 06:20, 08:15,11:43, 13:07 , AR 2645
<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>
03-04-2017	White light	09:57:39	16:43:51	25	AM:BAB PM:OLB	AM:2 PM:3	
	H $\alpha$	09:56:10	17:12:43	43281			
	Ca II K	09:57:29	17:12:06	44762			



Instrument/Mission/Ground-Based Observatory	Observing Day	Beginning Time (UTC)	End Time (UTC)	Lines (nm)	Pointing (arcsec) X= Y=	Number observations	Comments
ARCAS/HSRS	03 April	All day	All day	N/A	Full Sun		Weak noise storm
ARCAS/HSRS	03 April	14:20	14:50	N/A	Full Sun		High frequency continuum and intense type II burst
SWAP	03 Apr	04:00	07:00	17.4	0 -495	Cadence 110s	
SWAP	03 Apr	07:00	13:00	17.4	0 0	Cadence 110s	
SWAP	03 Apr	13:00	23:00	17.4	0 -495	Cadence 110s	<b>M5.8 flare</b> (maximum at 14:31 UT) and eruption on the solarwest-limb, <b>while off-pointed to the west.</b>
SWAP	03 – 04 Apr	23:00 03 Apr	04:00 04 Apr	17.4	0 0	Cadence 110s	
LYRA Unit 1	3 April	00:00	19:30, 05 April	120-123, 190-222 17- 80 + <5, 6- 20 + <2,	(off pointed as for SWAP times above)	Cadence 50ms	M1.2 flare on 2017-Apr-03 at 01:05 UT. M5.8 flare on 2017-Apr-03 14:31 UT. <b>AclearLyman-alpha</b>

							flare was observed in the beginning of the GOES flare in high quality unit 1.
<b>MSDP/Tour Solaire de Meudon (France)</b>	3 April	07:50-08:56		656.3	AR 12645	60	fine
	3 April	09:28-10:02		656.3	Disk center with ALMA		fine
	3 April	11:00-12:13		854.2	AR 12645	30	fine
	3 April	12:26		854.2	AR 12644	30	fine
	3 April	12:27-12:56		656.2	AR 12644	60	Fine eruption
	3 April	13:29-14:23		656.3	AR 12645	60	fine
	3 April	15:02-15:31		656.3	AR 12644	30	fine
<b>CLIMSO-L2</b>	3 April	07:45	16:13	393.3	whole disk	464	1 image per minute, weather permitting
<b>CLIMSO-C1</b>	3 April	07:45	16:12	656.3	prominences, 360°	441	1 image per minute, weather permitting
<b>CLIMSO-L1</b>	3 April	12:45	13:11	656.3	whole disk	19	1 image per minute, weather permitting
<b>CLIMSO-C2</b>	3 April	07:45	16:12	393.3	prominences, 360°	431	1 image per minute, weather permitting

GREGOR GRIS	03 April	09:40	10:10	1083	-797 -16 NOAA 12648	1 scan	Seeingpoor
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<b>NVST</b>	4 April	2:00	5:35	Imaging system: Ha center 、 TiO	target:12645		Weather bad seeing, strong wind
		5:40	7:55	Imaging system: Ha center 、 TiO	target:12645		Weather bad seeing, strong wind
<b>GREGOR GRIS</b>	04 April	08:57	09:39	1083	-682 24 NOAA 12648	1 scan	
<b>GREGOR HiFI</b>	04 April	08:58	09:28	450 G-band	-682 24 NOAA 12648	90	

<b>ONSET</b>	4 April	01:23	03:00	656.3 (0,±0.05) 360 425	AR12645	177	Weather: strong wind Seeing: bad Eruption: active region
		03:02	07:35		12644/12647	535	
		07:36	08:37		AR12645	78	
		08:38	09:02		12644/12647	21	
<b>INAF - OAcT</b>	4 April	05: 36	05:36	656.28	Full disk	1	Weather: cloudy Seeing: bad Eruption:-
<b>KSO H-alpha Full Disc 2048x2048@12bit</b>	4 April	06:06	13:57	656.3	0 0	195	Mostly Cloudy, 2 hours sunshine Seeing: fair no Flare
<b>KSO CaIIK Full Disk 2048x2048@12bit</b>	4 April	08:28	13:53	393.3	0 0	13	Mostly Cloudy, 2 hours sunshine Seeing: fair
<b>KSO Whitelight Full Disk 2048x2048@12bit</b>	4 April	08:27	13:57	546	0 0	41	Mostly Cloudy, 2 hours sunshine Seeing: fair no Flare
<b>USET</b>							
<b>Date</b>	<b>Filter</b>	<b>Obs. begin</b>	<b>Obs. end</b>	<b>Number of images</b>	<b>Observers</b>	<b>Quality</b>	<b>Remarks</b>
04-04-2017	White light	06:42:23	14:54:50	38	AM:FCE,BAB PM:OLM	AM:2 PM:3	
	H $\alpha$	06:36:55	13:09:39	46754			
	Ca II K	06:36:42	13:09:37	44304			