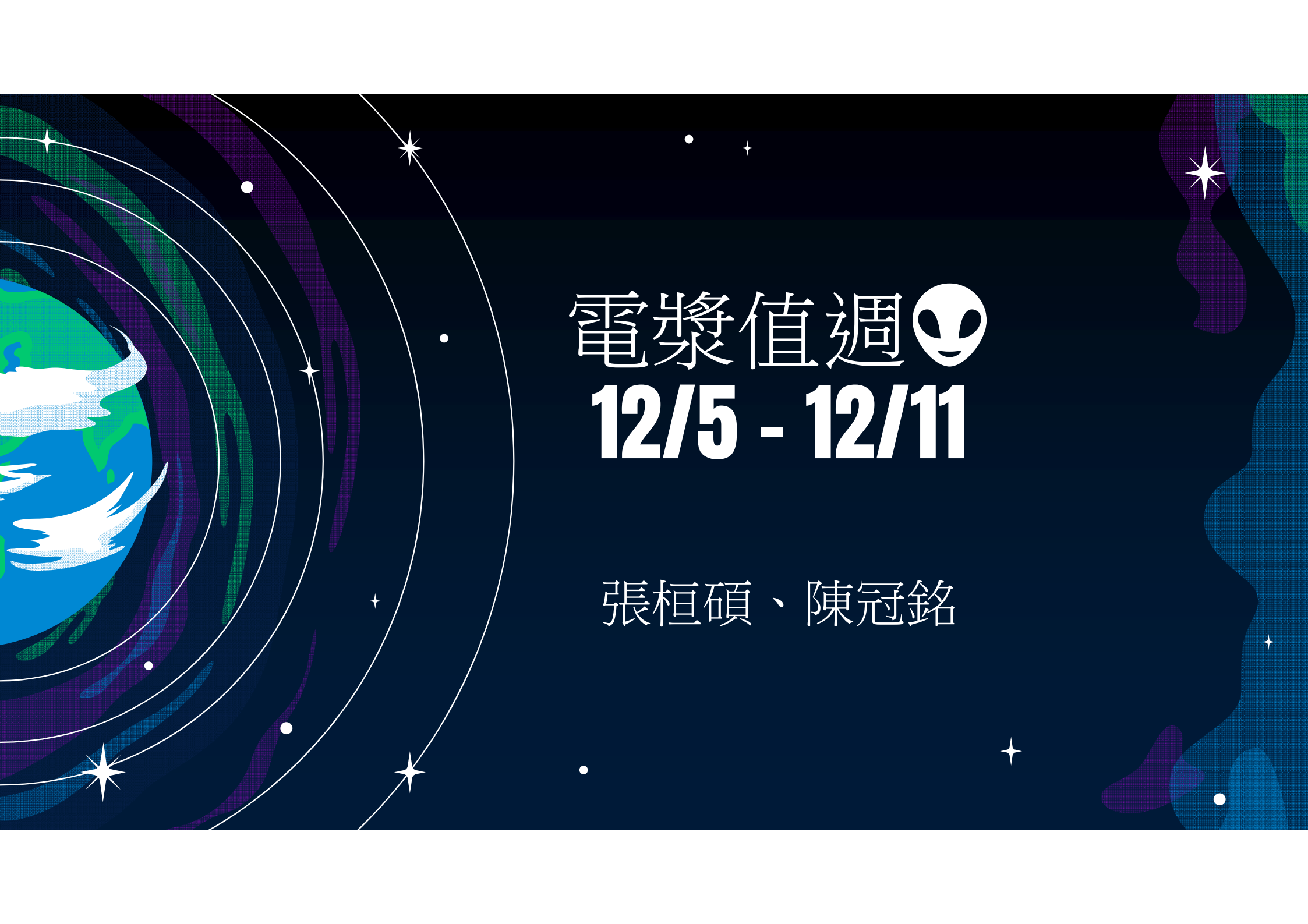
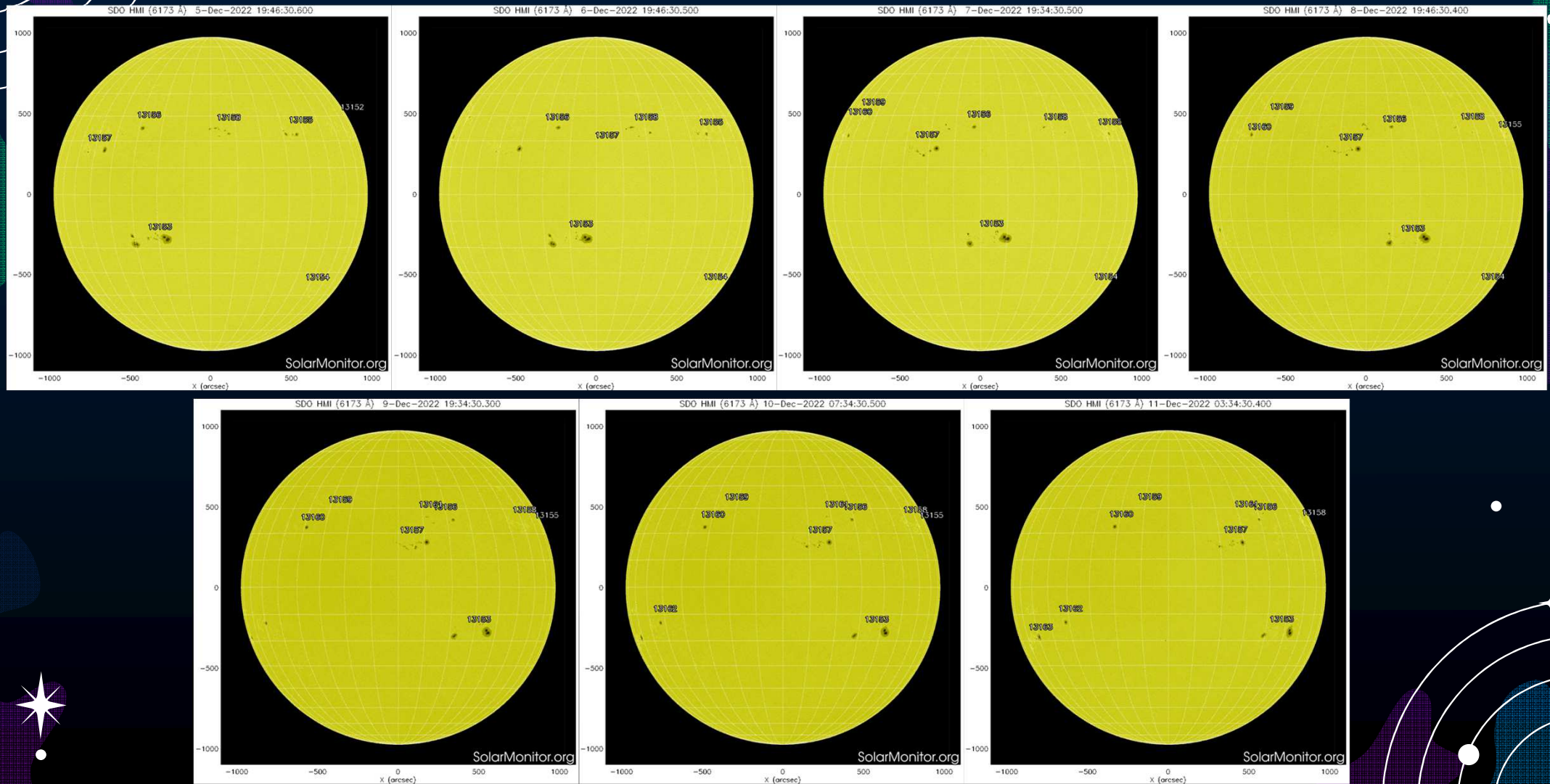




電漿值週👽 12/5 - 12/11

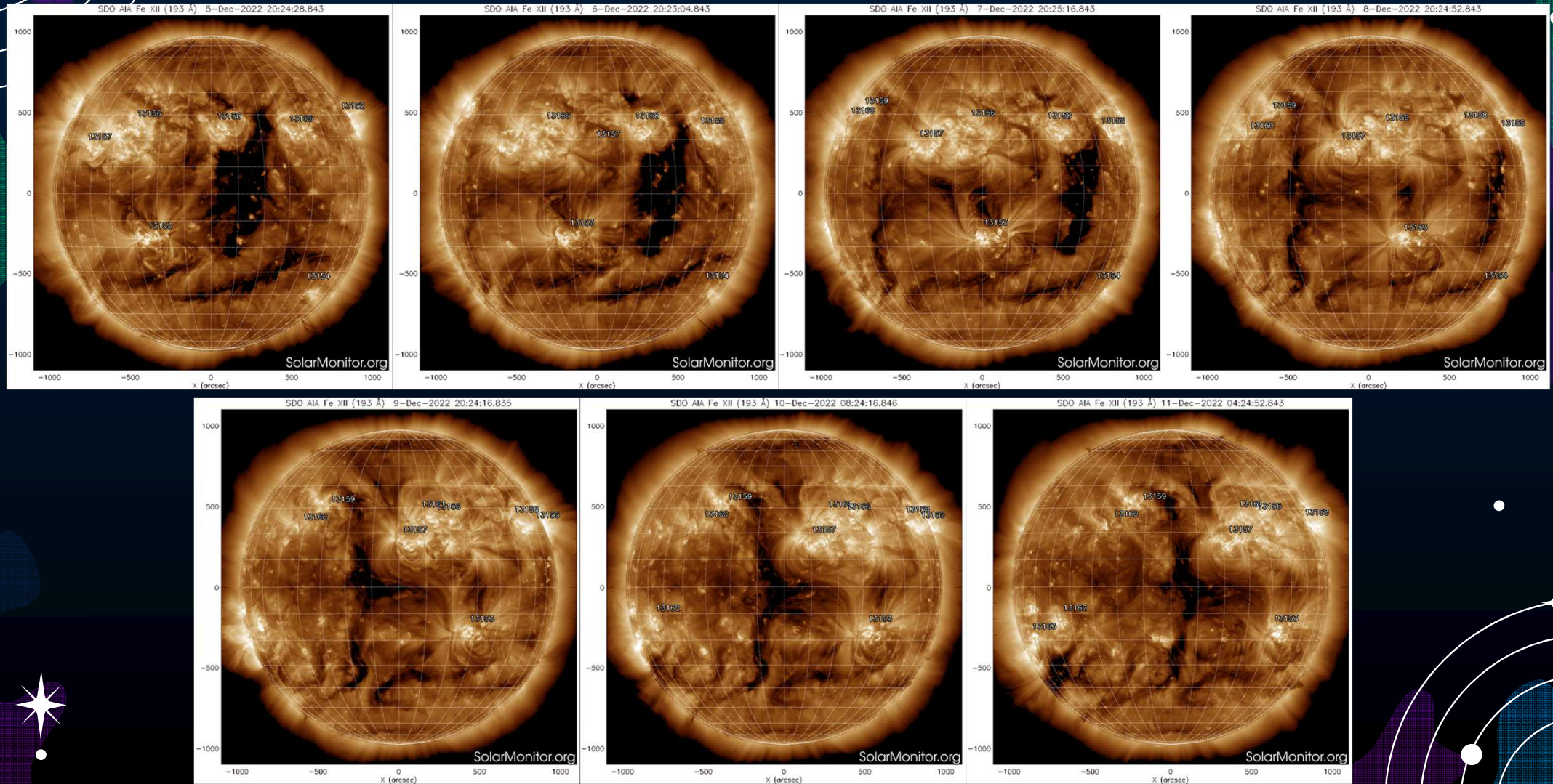
張桓碩、陳冠銘

<https://solarmonitor.org/index.php>



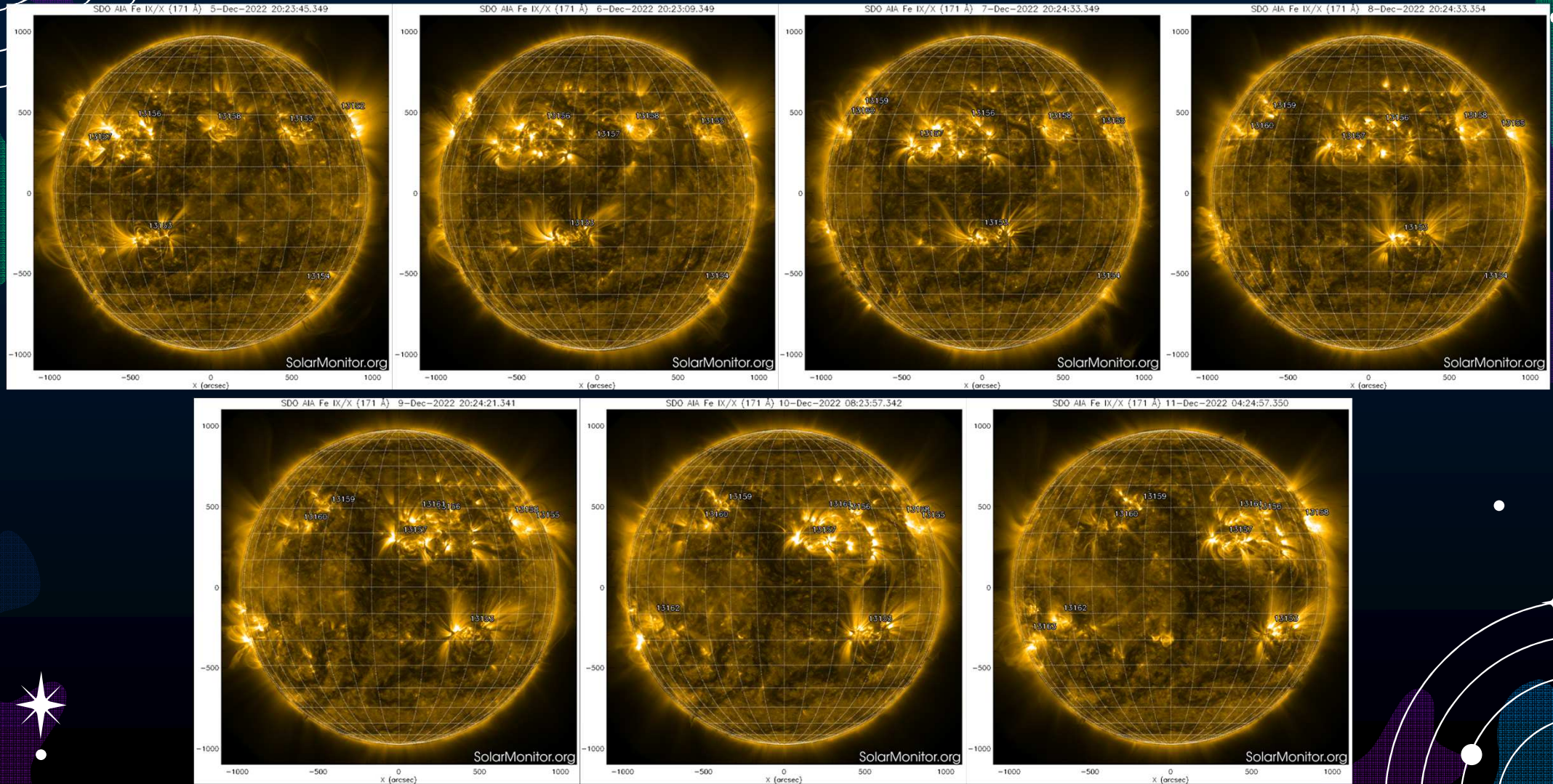
日冕洞 AIA 193Å

<https://solarmonitor.org/index.php>



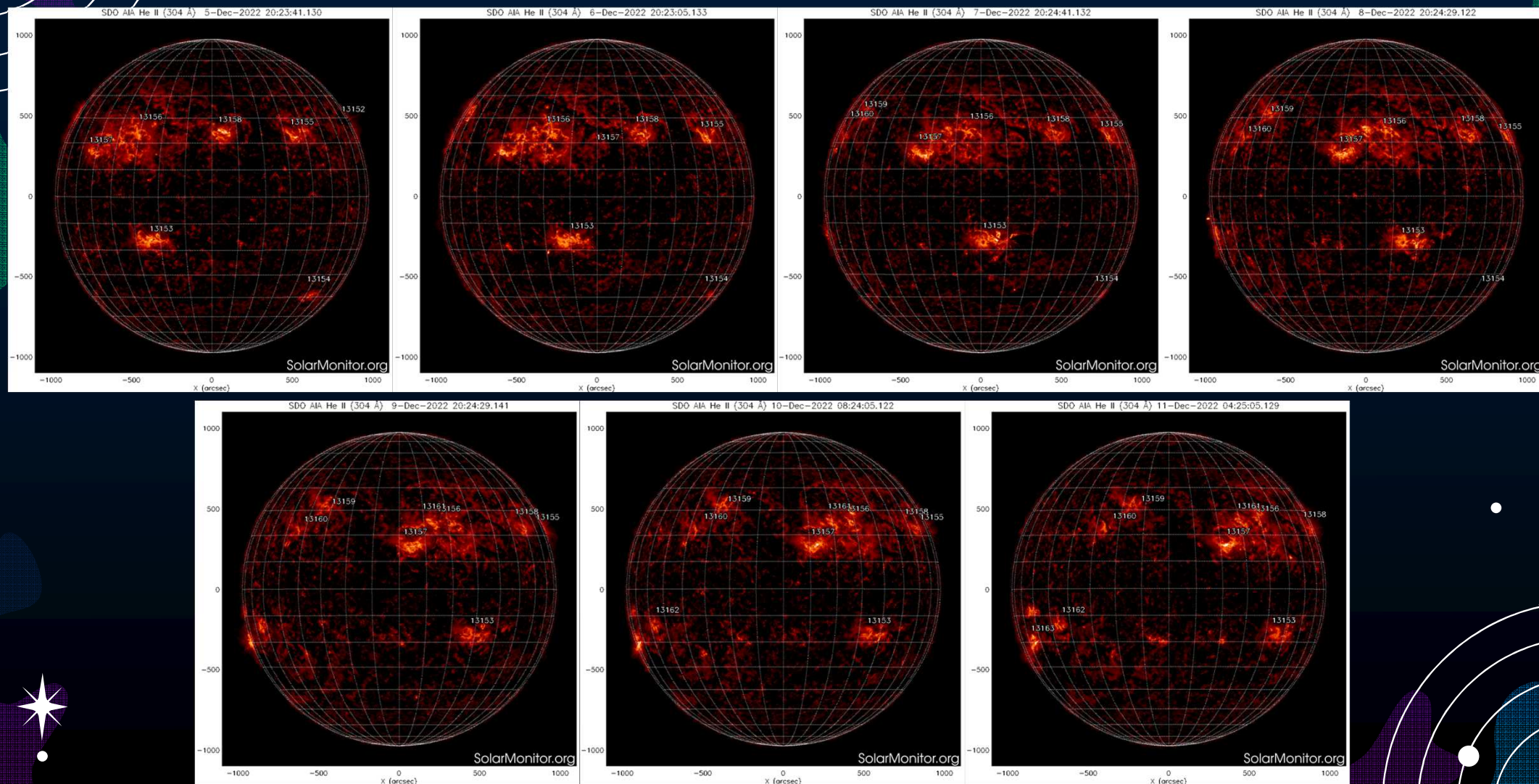
日冕 AIA 171Å

<https://solarmonitor.org/index.php>



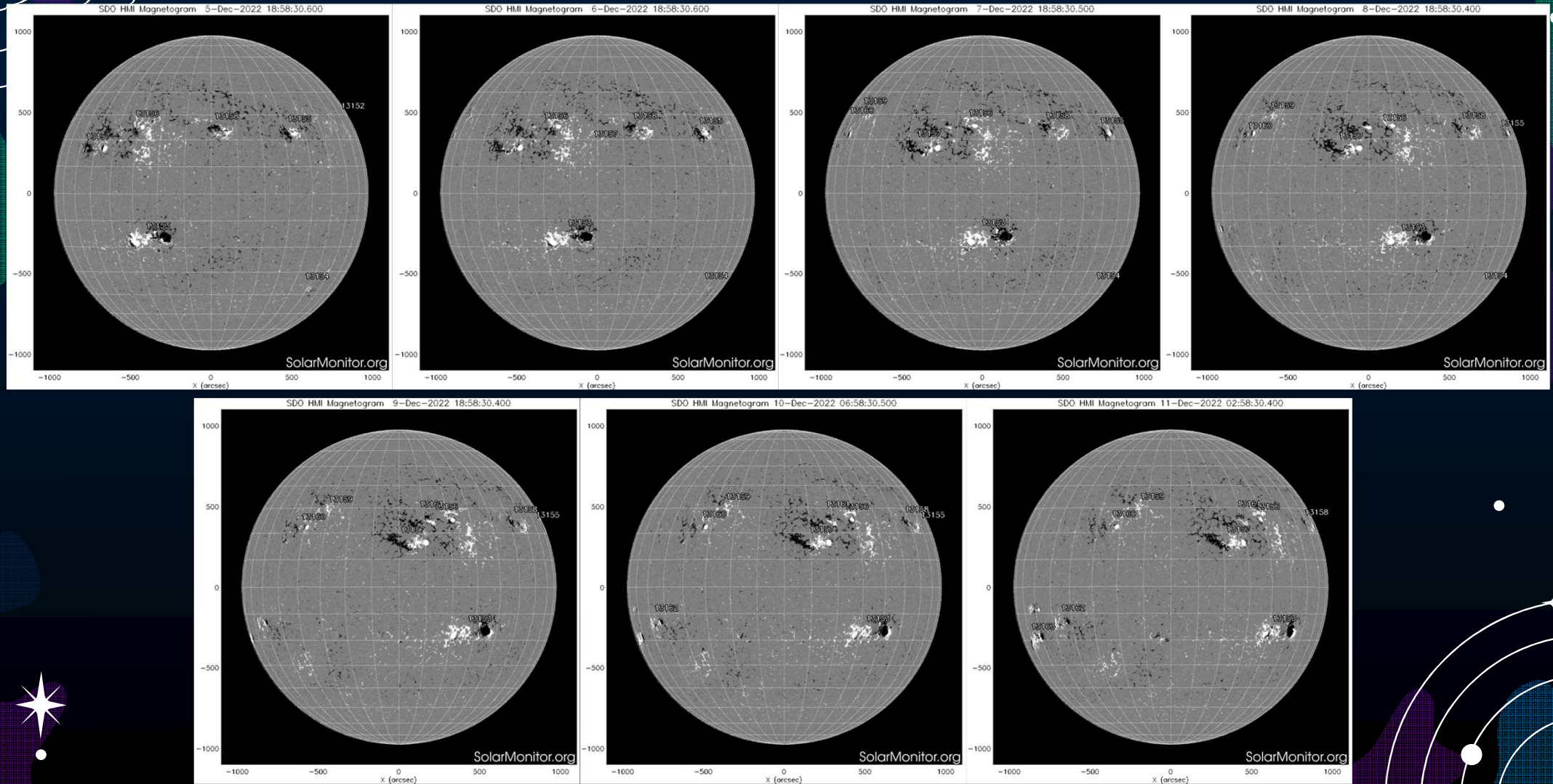
色球層(日珥) AIA 304Å

<https://solarmonitor.org/index.php>



HMI Magnetogram 地磁圖

<https://solarmonitor.org/index.php>



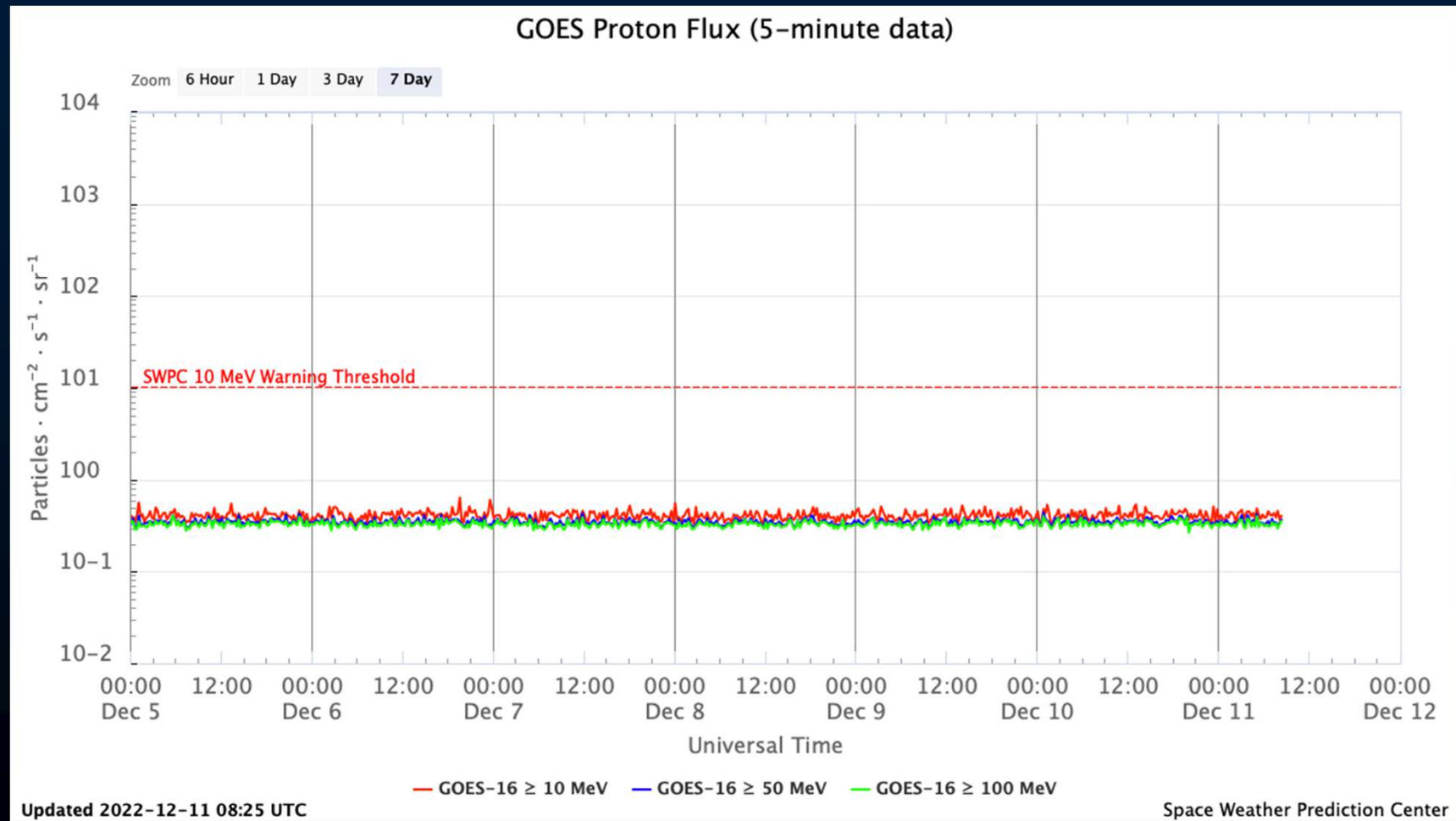
21 times CME last week

<https://www.sidc.be/cactus/out/latestCMEs.html>

#	CME	t0	dt0	pa	da	v	dv	minv	maxv	halo?
0020		2022/12/11 02:12	00	330	018	0553	0040	0508	0618	
0019		2022/12/10 23:48	03	031	012	0538	0159	0434	0801	
0018		2022/12/10 21:24	01	021	012	0426	0076	0351	0578	
0017		2022/12/10 19:00	01	117	012	0563	0351	0411	1250	
0016		2022/12/10 14:48	03	040	042	0576	0233	0372	1041	
0015		2022/12/10 07:24	01	100	014	0446	0235	0309	1008	
0014		2022/12/10 02:36	01	240	034	0726	0135	0637	1059	
0013		2022/12/10 02:36	02	301	044	0679	0320	0162	1201	
0012		2022/12/09 19:24	01	309	036	0664	0131	0512	0946	
0011		2022/12/09 14:36	04	090	042	0318	0076	0242	0504	
0010		2022/12/08 21:24	01	229	008	0347	0090	0184	0376	
0009		2022/12/08 18:12	02	290	026	1250	0245	0819	1453	
0008		2022/12/08 16:24	05	104	074	0676	0119	0437	0992	
0007		2022/12/08 12:36	01	319	012	0977	0205	0822	1453	
0006		2022/12/08 08:00	02	071	056	0238	0025	0182	0308	
0005		2022/12/08 07:24	16	208	086	0180	0064	0101	0355	
0004		2022/12/08 06:24	02	304	026	1404	0286	1041	1838	
0003		2022/12/08 00:36	01	274	010	0564	0098	0474	0765	
0002		2022/12/06 21:24	15	146	046	0126	0053	0098	0269	
0001		2022/12/06 07:36	01	314	010	0245	0081	0102	0336	
		2022/12/05 20:00	01	257	012	0343	0089	0256	0488	

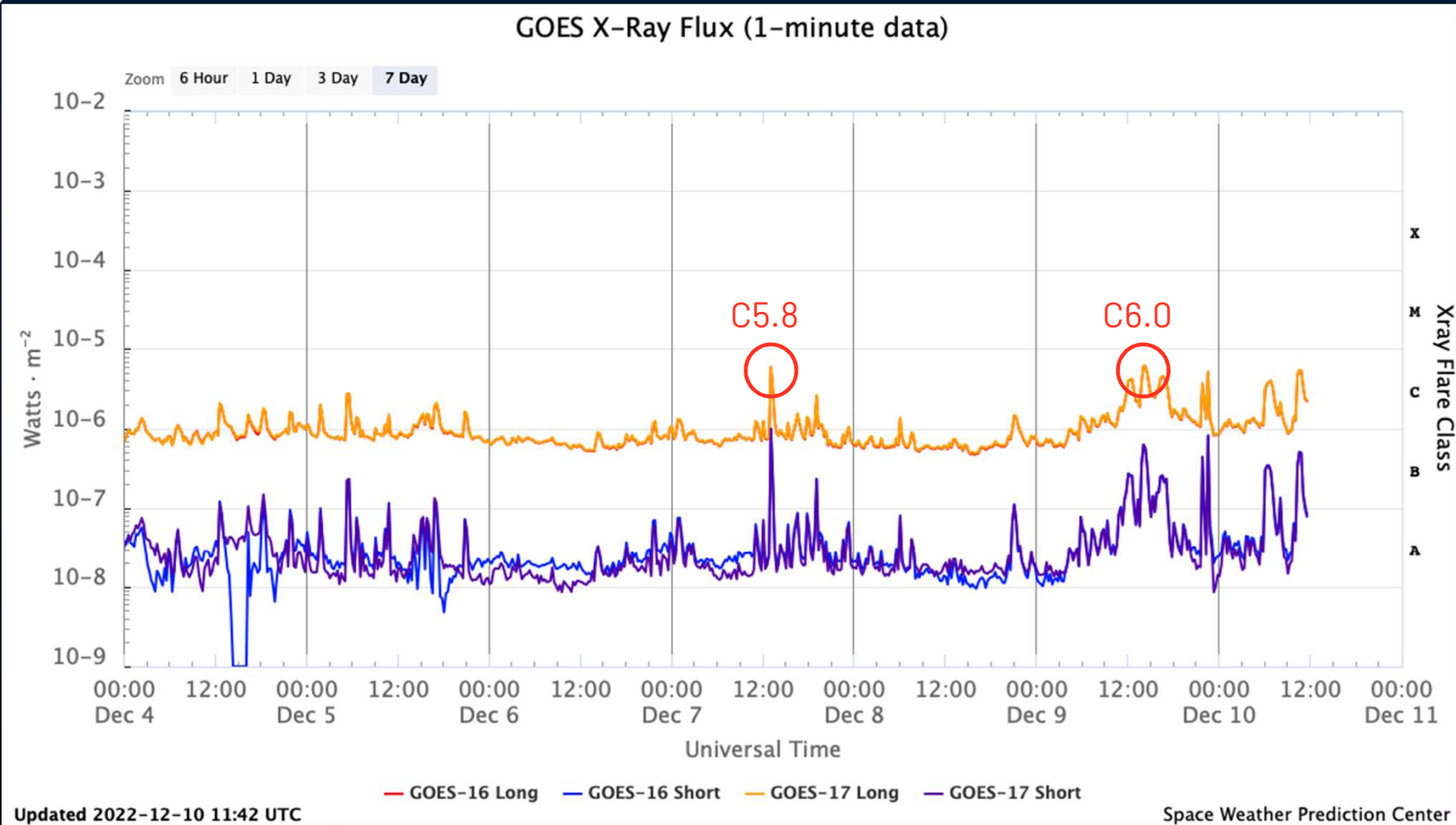
GOES Proton Flux

<https://www.swpc.noaa.gov>

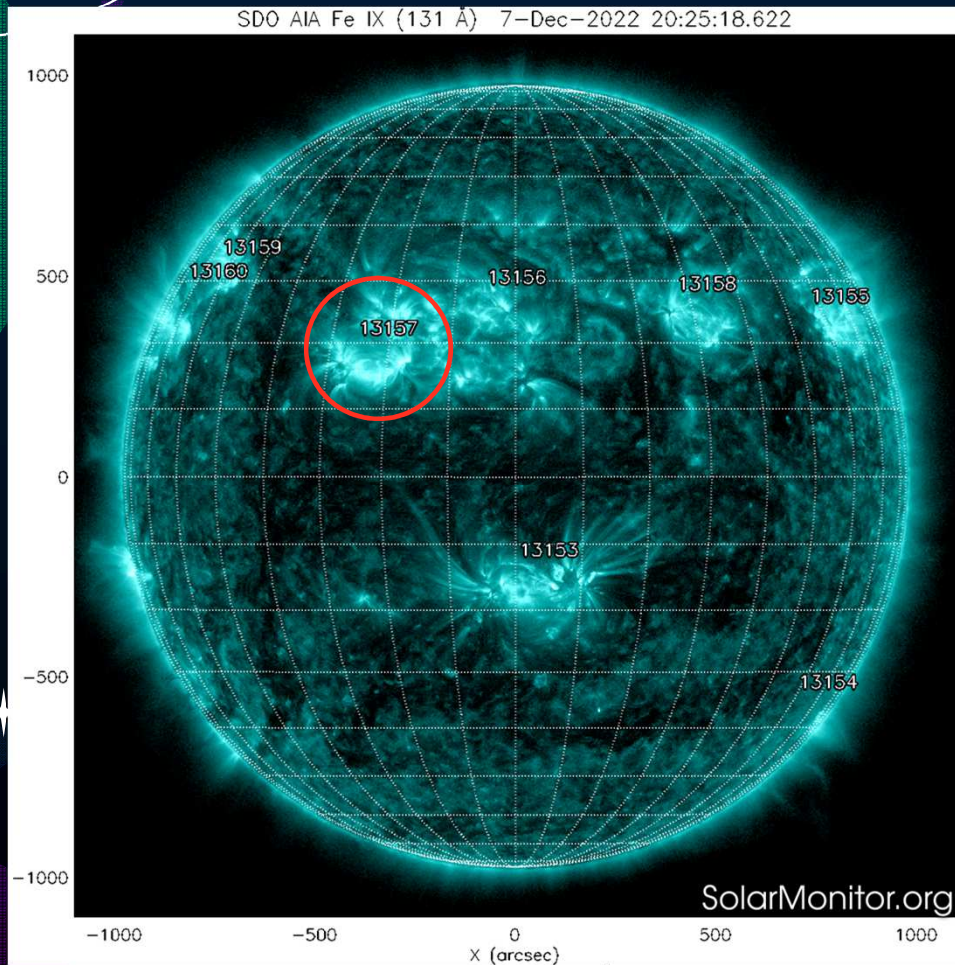


GOES X-ray Flux

<https://www.swpc.noaa.gov/products/goes-x-ray-flux>



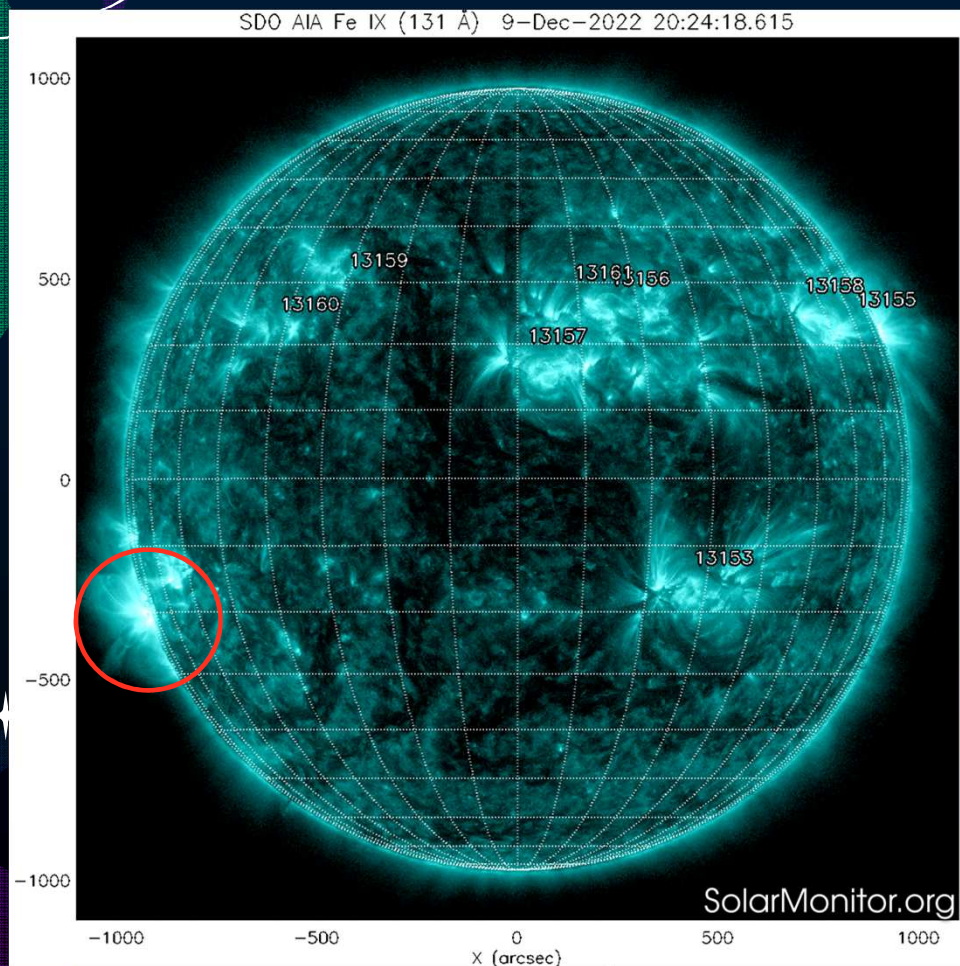
Solar flare (12/07)



7	gev_20221207_1100	2022/12/07 11:00:00	11:28:00	11:11:00	C1.2	N15E28 (3157)
8	gev_20221207_1157	2022/12/07 11:57:00	12:13:00	12:07:00	C1.2	N14E26 (3157)
9	gev_20221207_1256	2022/12/07 12:56:00	13:16:00	13:04:00	C5.8	N14E25 (3157)
10	gev_20221207_1516	2022/12/07 15:16:00	15:29:00	15:23:00	C1.1	N14E31 (3157)

https://swoo.cwb.gov.tw/V2/page/EN/Observation/GOES_Xray.htm

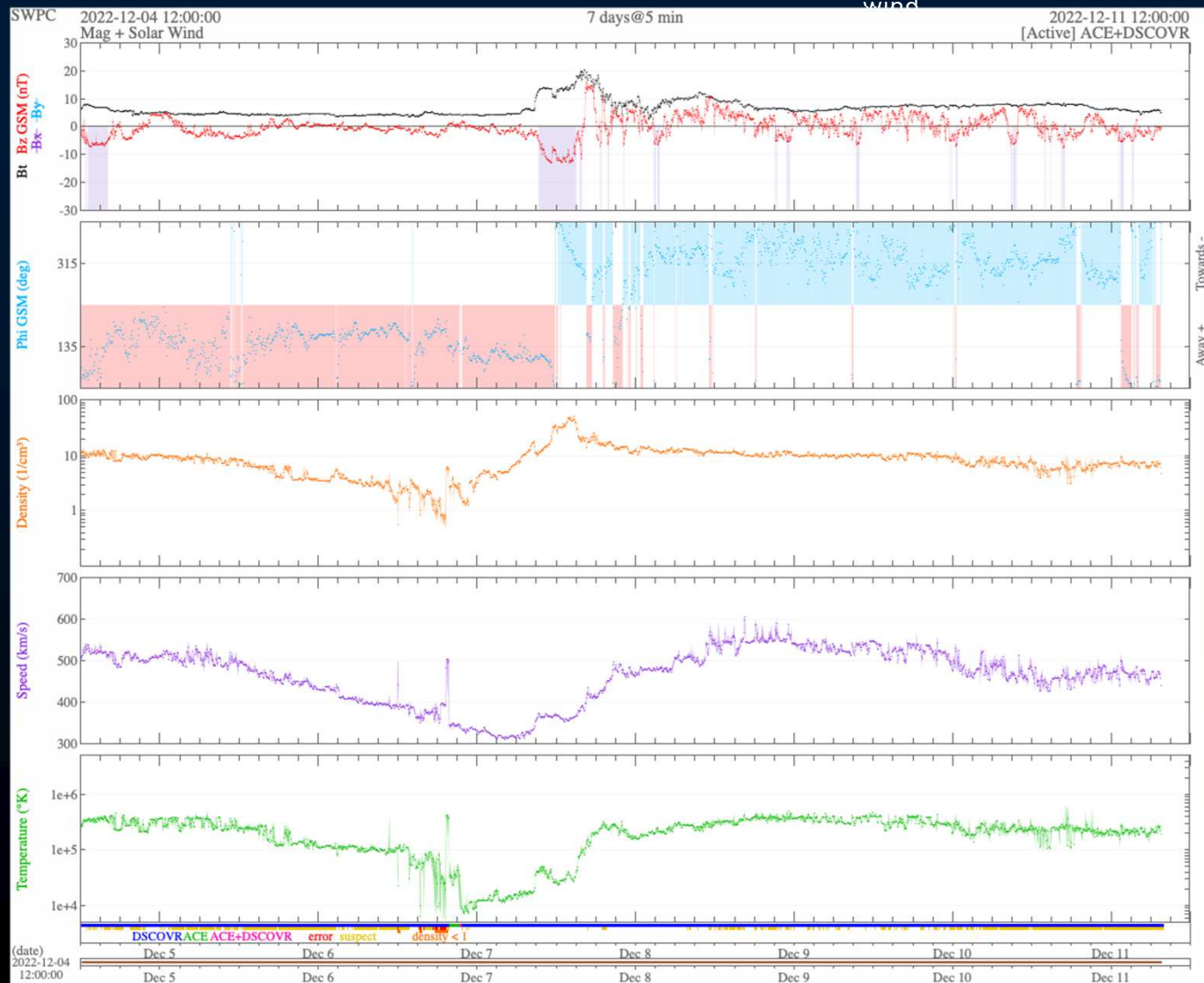
Solar flare (12/09)



9	gev_20221209_1237	2022/12/09 12:37:00	12:44:00	12:40:00	C4.1	N13W02 (3157)
10	gev_20221209_1347	2022/12/09 13:47:00	13:59:00	13:57:00	C3.9	S18E89
11	gev_20221209_1359	2022/12/09 13:59:00	14:55:00	14:13:00	C6.0	S19E89
12	gev_20221209_1547	2022/12/09 15:47:00	16:35:00	16:32:00	C4.4	S18E89

https://swoo.cwb.gov.tw/V2/page/EN/Observation/GOES_Xray.htm

Solar Wind Data <https://www.swpc.noaa.gov/products/real-time-solar-wind>

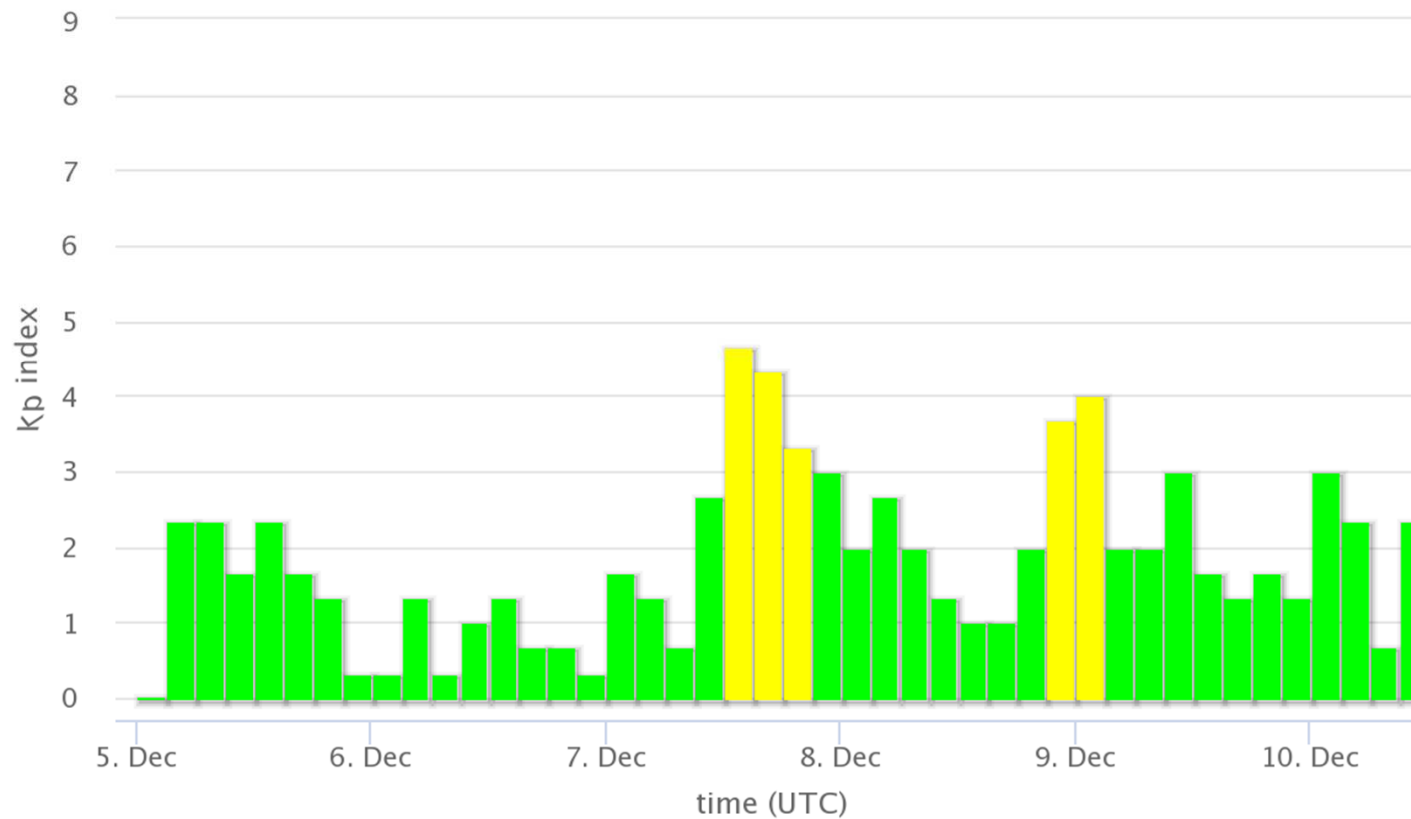


Kp index

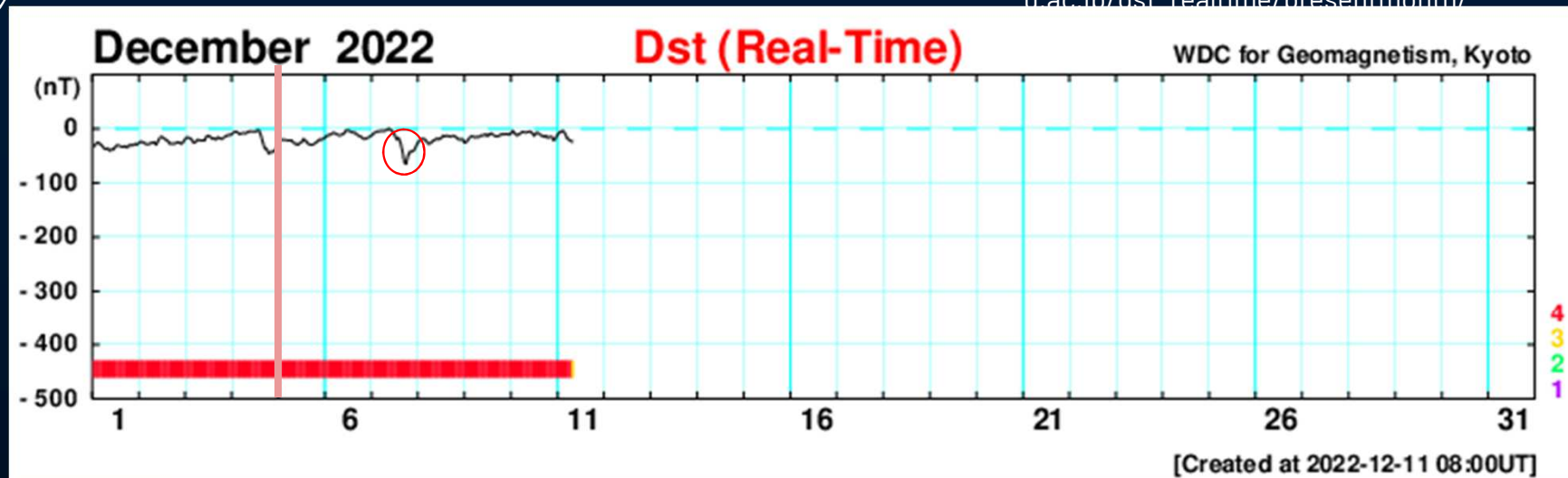
<https://kp.gfz-potsdam.de/en/hp30-hp60/10-days-plot>

Current K_p index

GFZ German Research Centre for Geosciences (CC BY 4.0)



https://wdc.kugi.kyoto-u.ac.in/dst_realtime/presentmonth/

[illegible]

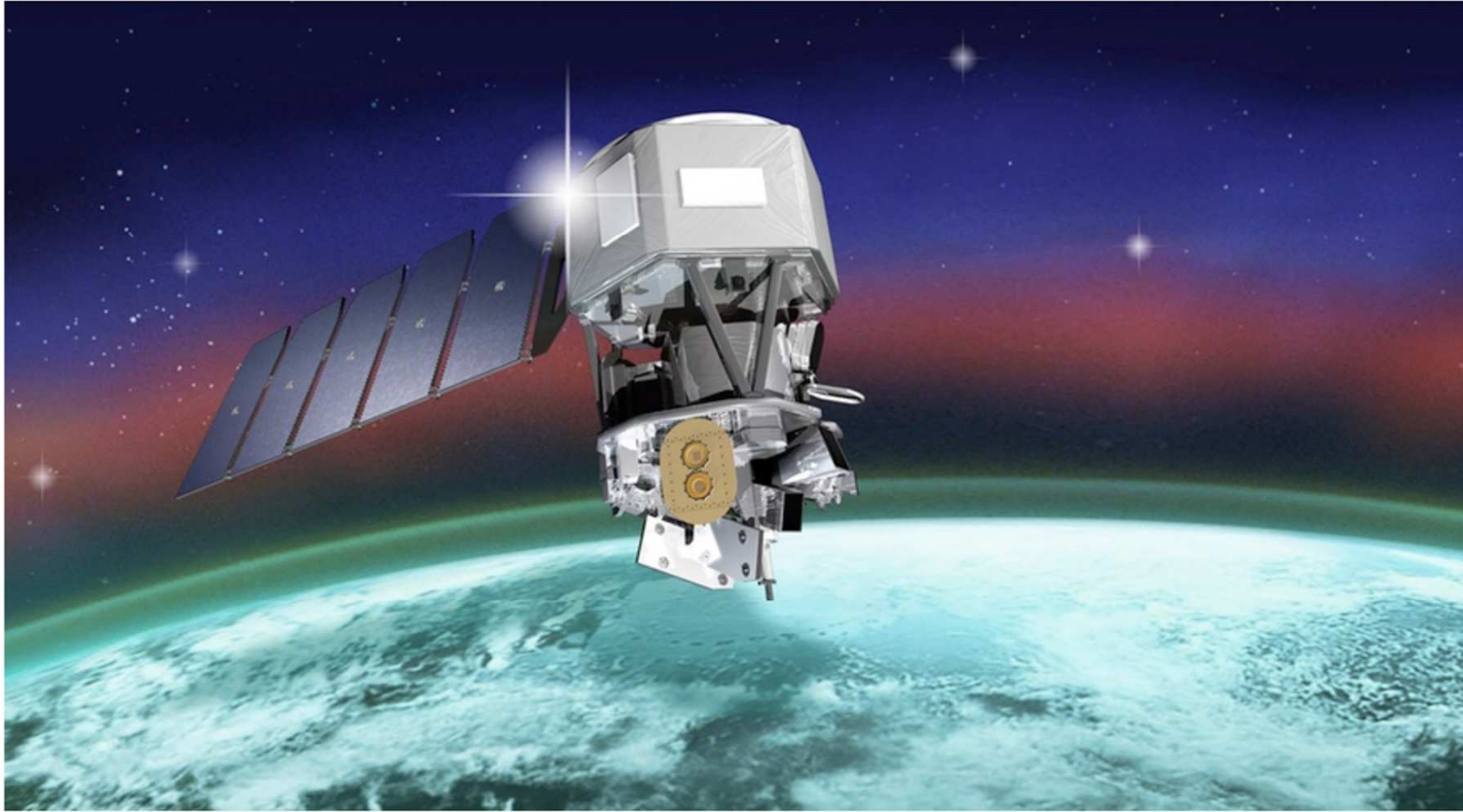


SPACE**NEWS**[®]

The logo for Space News is displayed in a bold, sans-serif font. The word "SPACE" is in black, and "NEWS" is in red. A white starburst graphic is integrated into the letter 'A' of "SPACE". The logo is centered on a white rectangular background, which is itself set against a dark blue space-themed backdrop. The backdrop features white stars, some with four-pointed starbursts, and stylized orbital lines in the corners. Purple and green wavy patterns are also visible along the left and right edges of the background.

NASA loses contact with ICON spacecraft

by Jeff Foust — December 8, 2022



NASA's ICON spacecraft has been out of contact since Nov. 25 after experiencing some kind of malfunction. Credit: NASA GSFC/Mary Pat Hrybyk-Keith

summary

- 從**11/25**就未與地面站通訊
- 觸發**command lost timer**，八天後**NASA**尚未收到通訊
- 航空電子設備或者通訊次系統可能出問題
- 缺乏**downlink**訊號所以也無法判斷系統錯誤
- **ICON** 完好無損

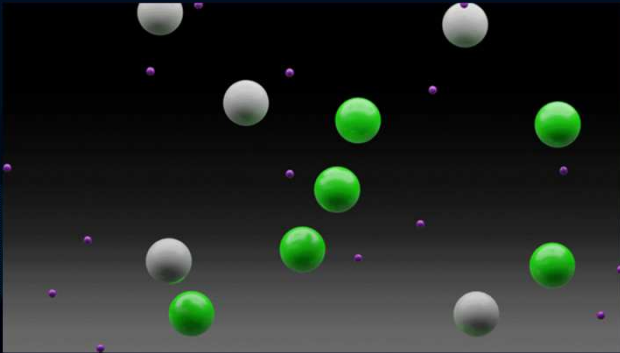
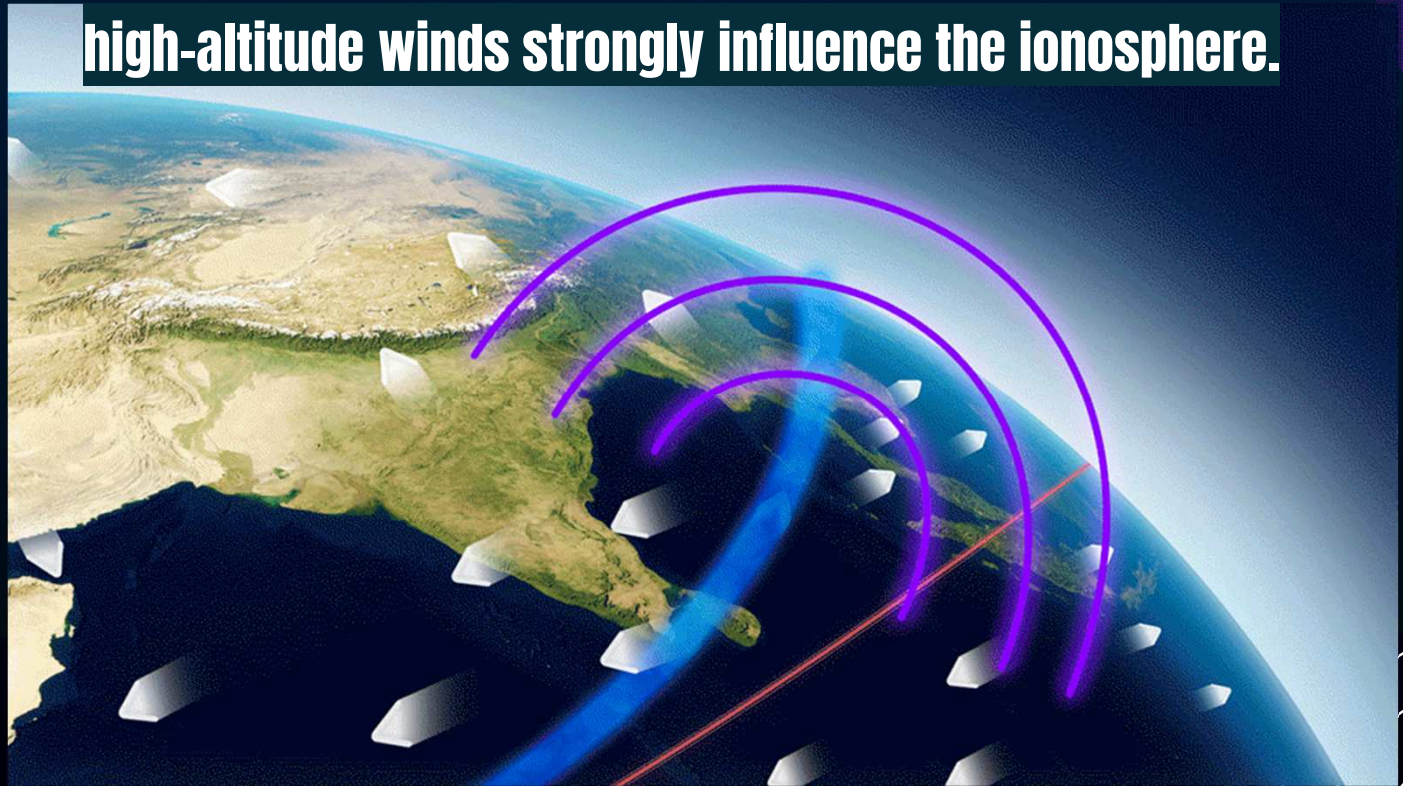


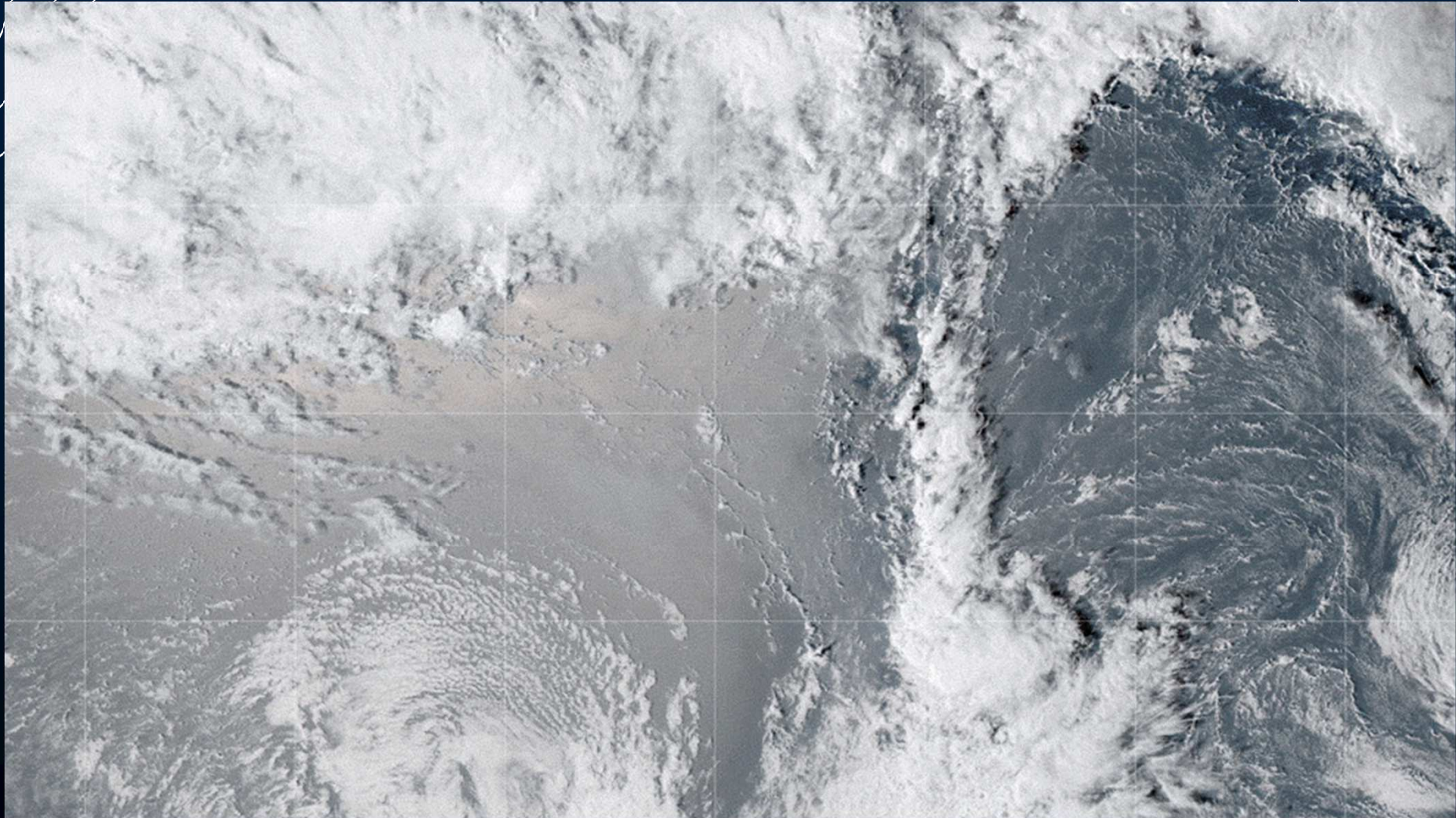
Ionospheric Connection Explorer (ICON) spacecraft

任務：研究電離層與太空天氣、陸地天氣的交互作用

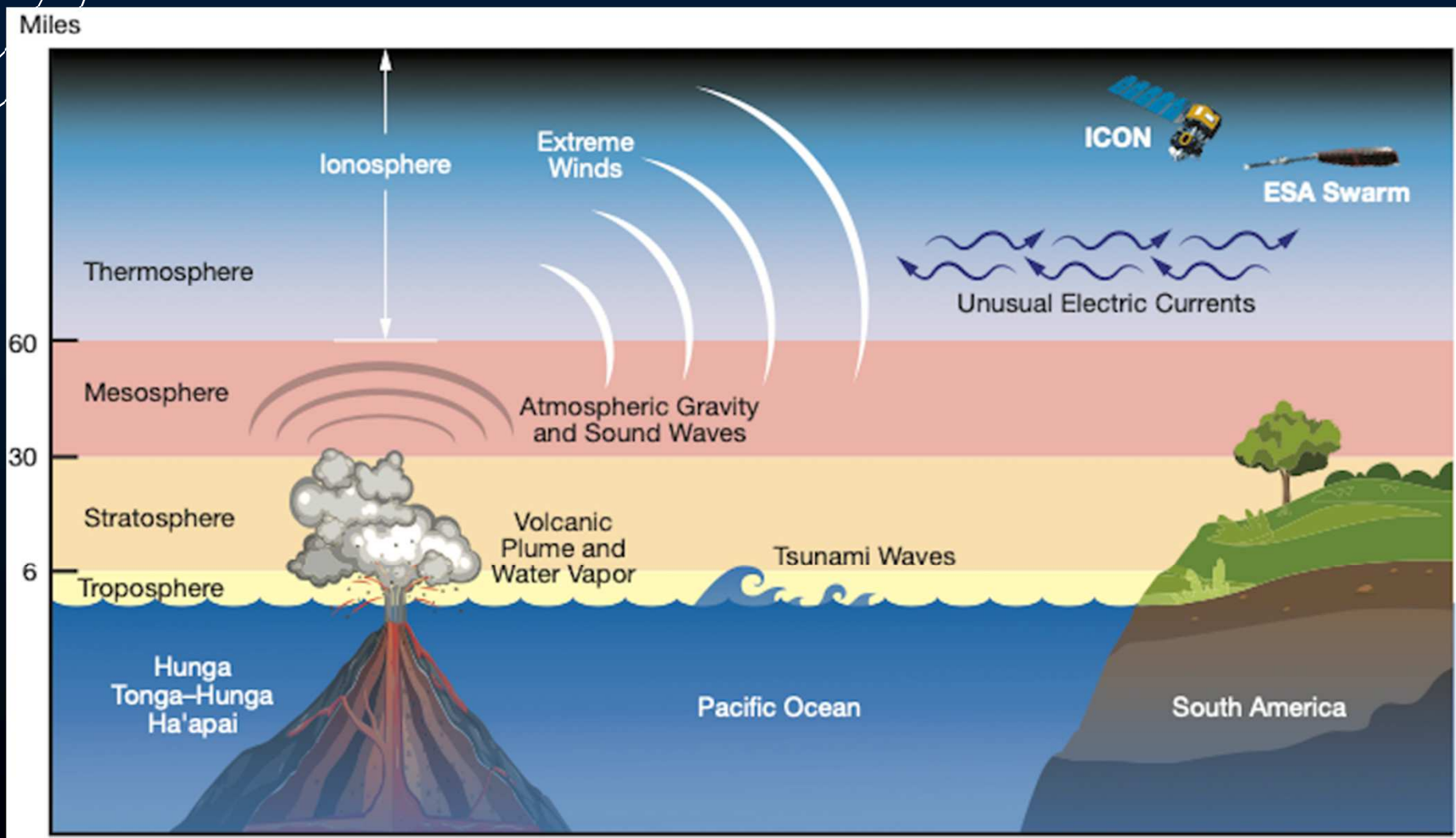
白：atmospheric tides
藍：electric field
粉：plasma

high-altitude winds strongly influence the ionosphere.





The GOES-17 satellite captured images of an umbrella cloud generated by the underwater eruption of the Hunga Tonga-Hunga Ha'apai volcano on Jan. 15, 2022. Crescent-shaped bow shock waves and numerous lighting strikes are also visible.



SpaceX now targeting Dec. 11 for launch of Japanese moon lander after delays

By [Elizabeth Howell](#) published 3 days ago

That's the same day NASA's Artemis 1 Orion spacecraft is scheduled to return to Earth.



i s p a c e



HAKUTO-R Mission1

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HAKUTO-R Mission 1

Let's go to the Moon



000 | 16 : 03 : 16

day

h

min

sec

Countdown to M1 Launch*

ispace



HAKUTO-R Miss



國家太空中心 NSPO 30m



spacecraft

News

Region

JP / EN



HAK

L

n 1



000

day

16

sec

日本民間登月任務
「Hakuto-R」出發了!!!!



Write a comment...



The coming SpaceX flight, which will kick off ispace's Mission 1, was originally supposed to get off the ground last month. It has been [pushed back several times](#), however, so [SpaceX](#) could perform additional checks on the Falcon 9.

News

ispace Announces Mission 1 Launch Date

17 Nov, 2022

Scheduled to launch on November 28, 2022, on a SpaceX Falcon 9 rocket

TOKYO—November 17, 2022— ispace, inc., a global lunar exploration company, plans to launch its Mission 1 (M1) lunar lander, part of the HAKUTO-R lunar exploration program, on Nov. 28, 2022, at the earliest, on a SpaceX Falcon 9 rocket from Cape Canaveral Space Force Station, Founder & CEO Takeshi Hakamada announced today at a press conference in Tokyo.

"We want to help customers quickly turn raw satellite data into actionable information that can be used to disseminate alerts in seconds, enable onboard federated learning for autonomous information acquisition, and increase the value of data that is downlinked,"

Amazon tests machine learning software to analyze satellite images from space

By [Tereza Pultarova](#) published 4 days ago

Artificial intelligence in space can revolutionize Earth-observation.

[f](#) [t](#) [r](#) [p](#) [f](#) [e](#) [c](#) [Comments \(0\)](#)



D-Orbit's ION satellite runs a machine-learning experiment for analyzing Earth-observation data. (Image

In-Orbit Now (ION) Satellite

an artificially intelligent software running directly on an orbiting satellite that can make its own decisions about which photos to transmit to Earth.

- 成功識別了大氣雲層和野火煙霧，以及地面上的建築物和海上的船隻。
- 將傳輸到地球的圖像大小減少多達 **42%**
- 衛星仍在軌道上持續進行實驗。



Reference

NASA ICON spacecraft : <https://blogs.nasa.gov/icon/2022/12/07/icon-mission-out-of-contact/>

<https://spacenews.com/nasa-loses-contact-with-icon-spacecraft/>

ispace: <https://ispace-inc.com/m1>

<https://www.space.com/amazon-satellites-machine-learning-in-orbit-first>