

Aurora Trip Tromsø (Norway) 14-20th November 2025

Mike Whybray

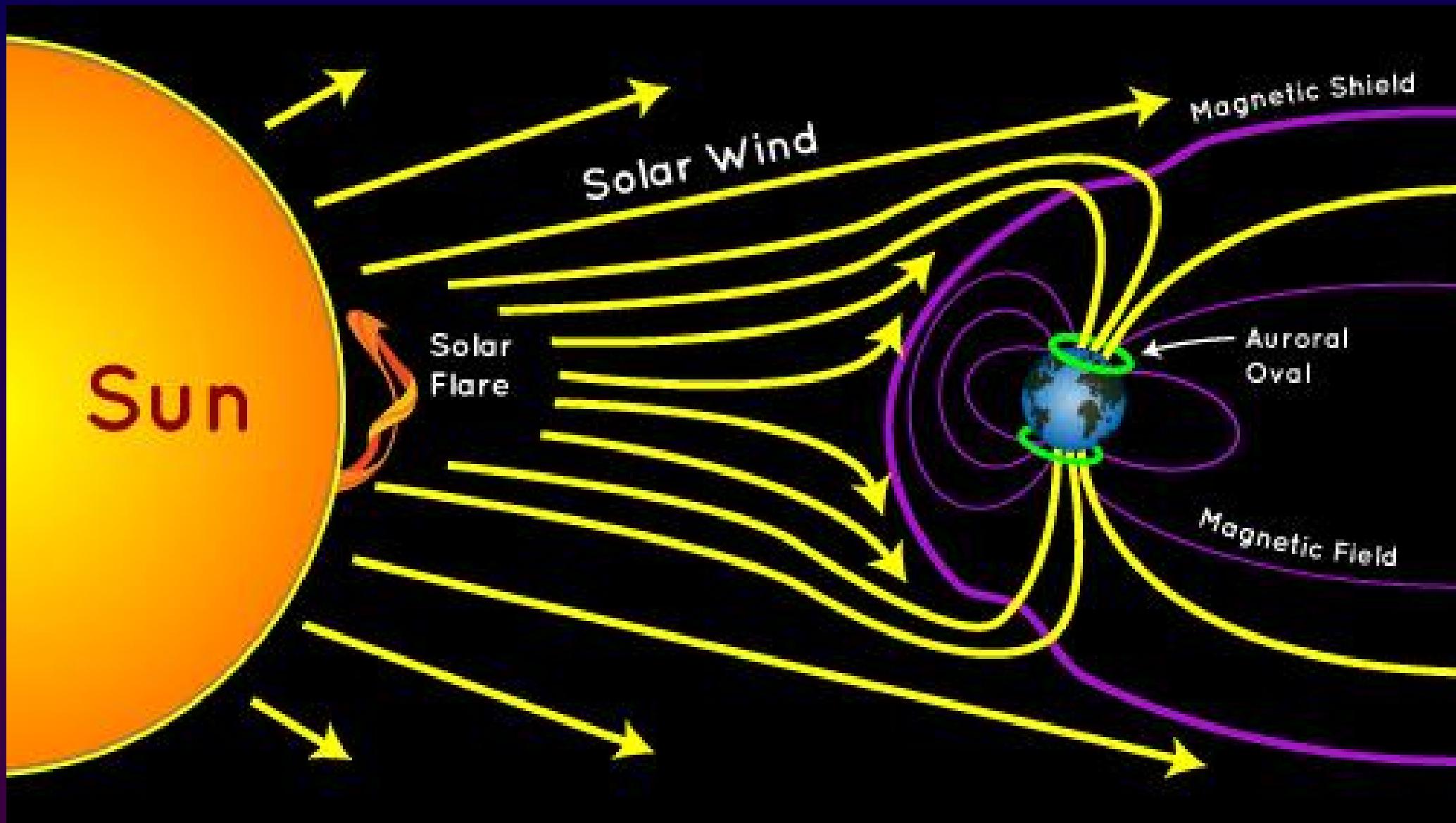


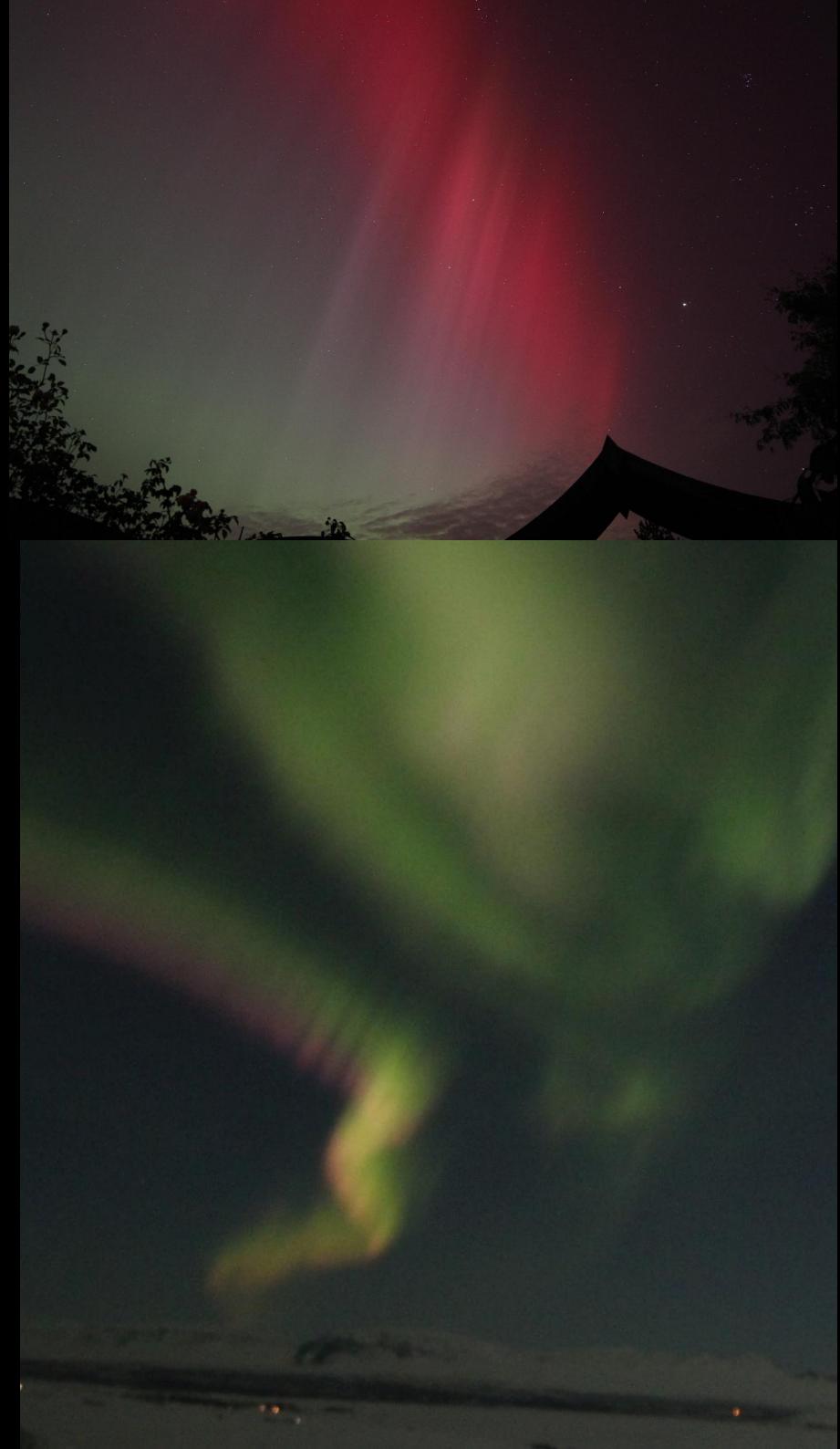
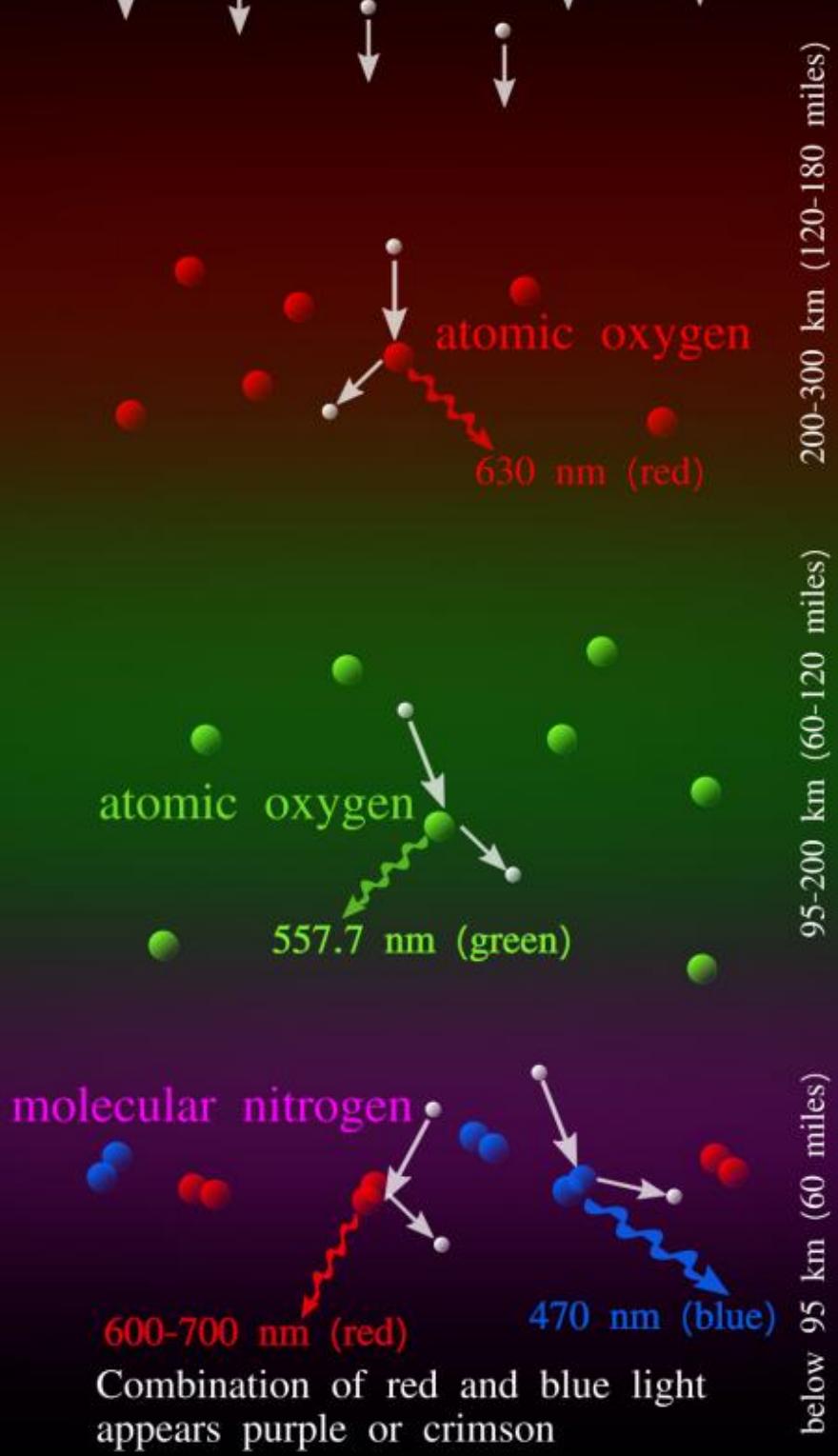
Talk overview

- What causes aurora
- Planning
- Equipment
- Images and time-lapse videos
- Other sights in Tromsø



Aurora mechanism





When to go for aurora?

- **Dark skies** - September - March
- **Moon** - ideally none near midnight
 - between 3rd and 1st quarter
 - <https://moonphases.co.uk/moon-calendar>
- **Weather** - ideally a clear sky!
 - 10 day forecast e.g. weather-forecast.com
- **Solar Wind** - ideally fast/dense expected
 - Google “space weather enthusiasts dashboard”



<https://www.swpc.noaa.gov/communities/space-weather-enthusiasts-dashboard>

```
:Product: 01031230three_day_forecast.txt
:Issued: 2026 Jan 03 1230 UTC
# Prepared by the U.S. Dept. of Commerce, NOAA, Space Weather Prediction Center
#
A. NOAA Geomagnetic Activity Observation and Forecast
```

The greatest observed 3 hr Kp over the past 24 hours was 5 (NOAA Scale G1).
The greatest expected 3 hr Kp for Jan 03-Jan 05 2026 is 5.67 (NOAA Scale G2).

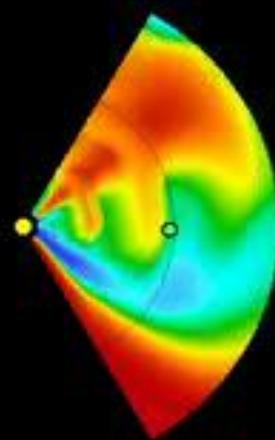
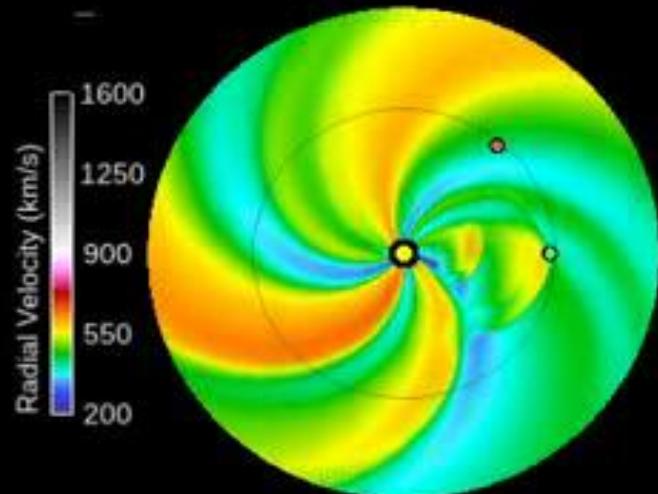
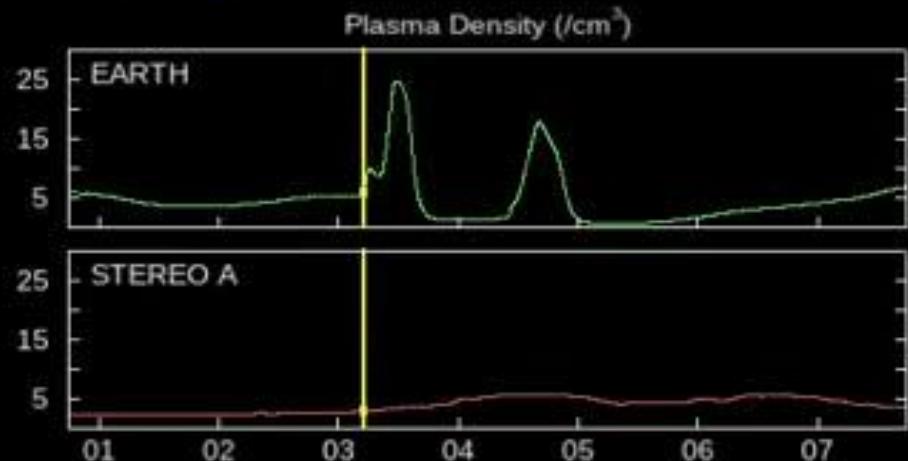
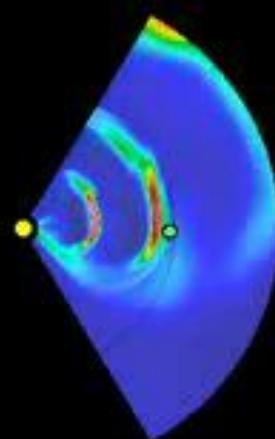
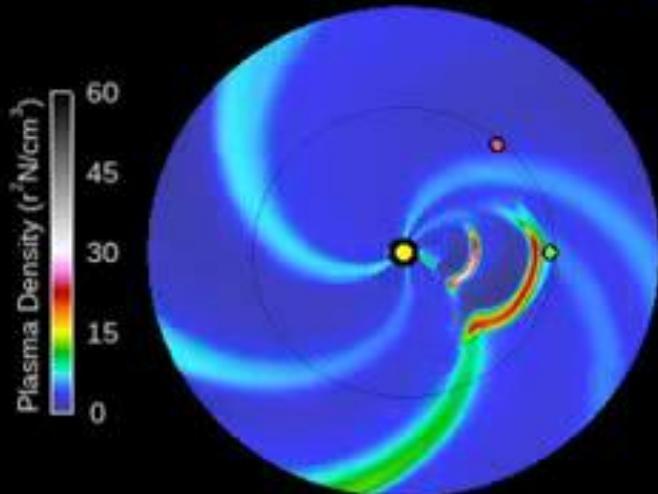
NOAA Kp index breakdown Jan 03-Jan 05 2026

	Jan 03	Jan 04	Jan 05
00-03UT	3.33	3.67	3.00
03-06UT	3.33	3.33	2.00
06-09UT	2.00	2.00	2.00
09-12UT	2.00	3.00	2.67
12-15UT	3.67	3.00	2.67
15-18UT	3.00	2.00	2.67
18-21UT	3.00	4.67 (G1)	2.67
21-00UT	5.67 (G2)	3.67	3.00

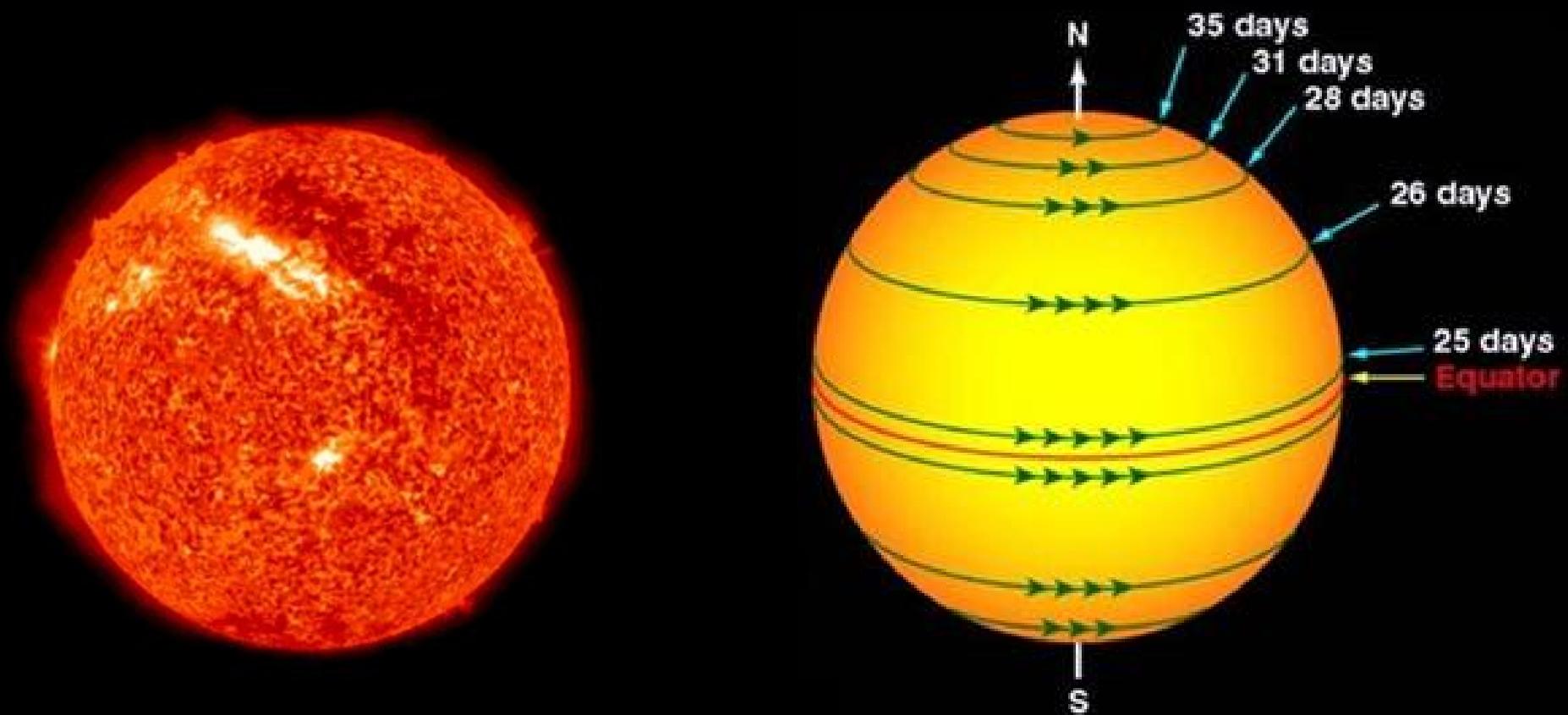
Rationale: G2 (Moderate) storming is likely on 03 Jan due to the combination of the ongoing HSS activity and the peak impact of the 31 Dec CME. G1 (Minor) storming levels are then likely on 04 Jan due to the anticipated arrival of the 02 Jan CME.

'Solar Wind' forecast animation

2026-01-03 05:00Z

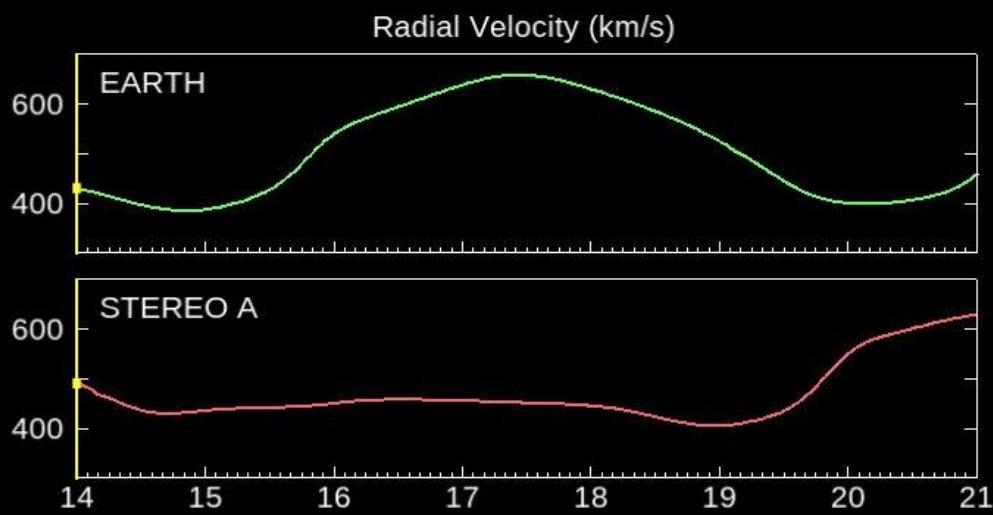
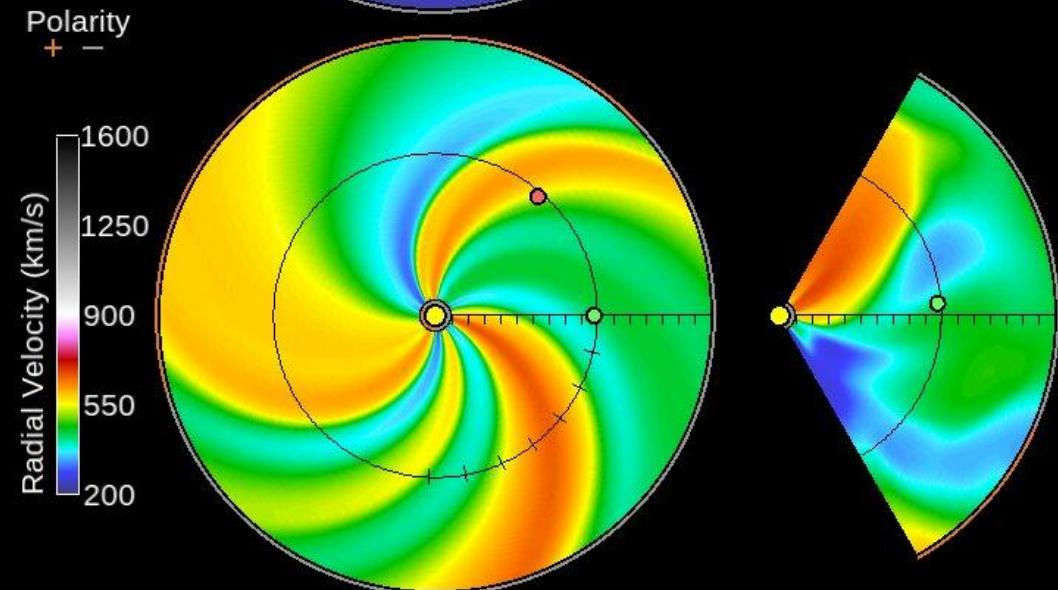
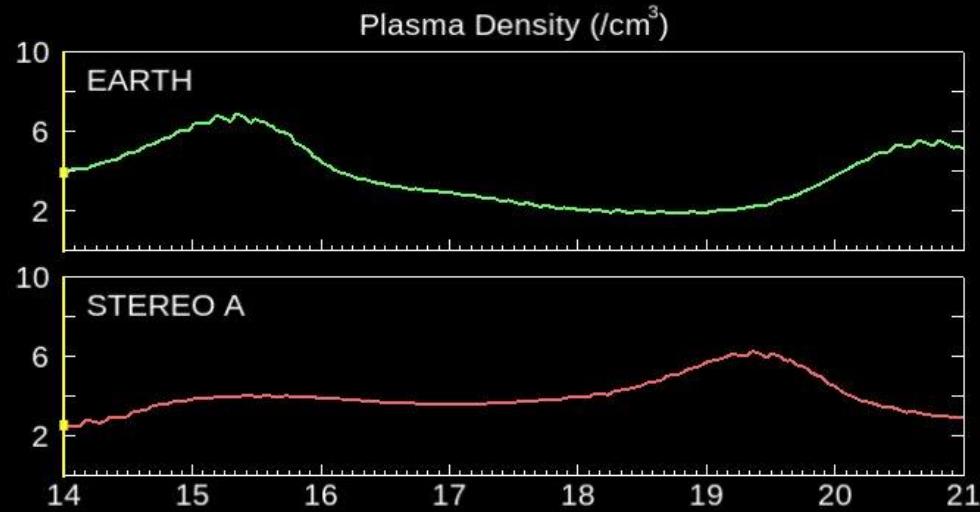
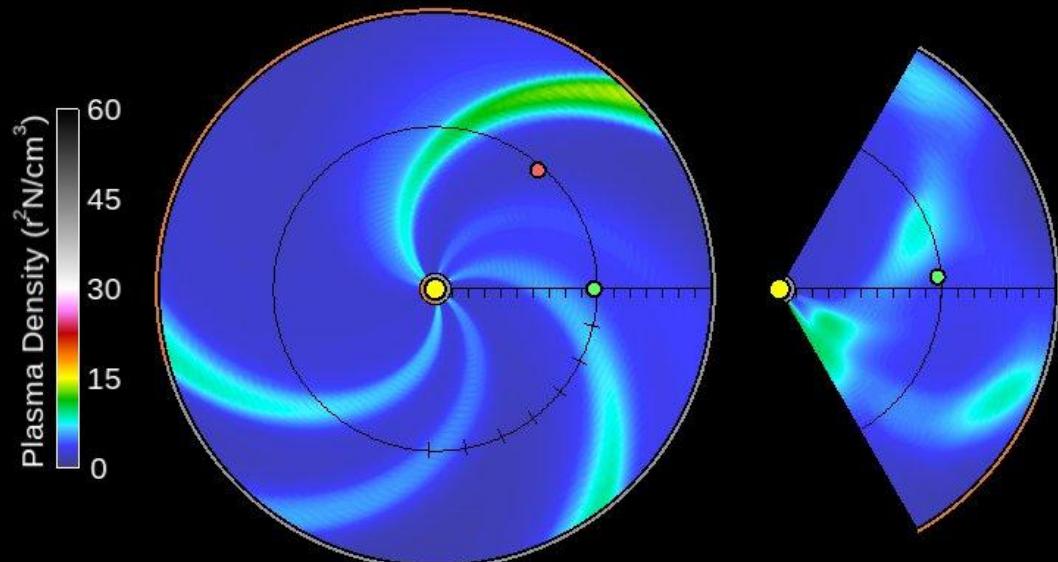


Solar Rotation



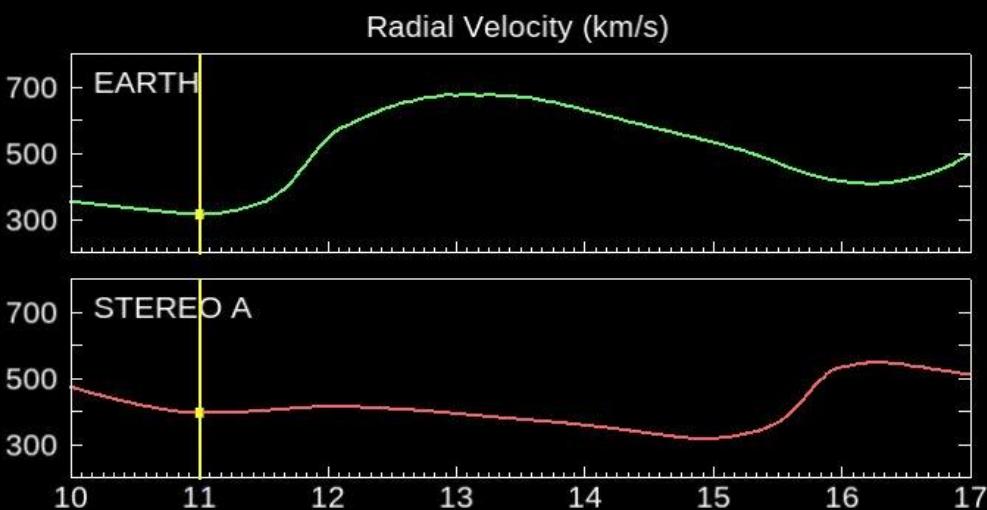
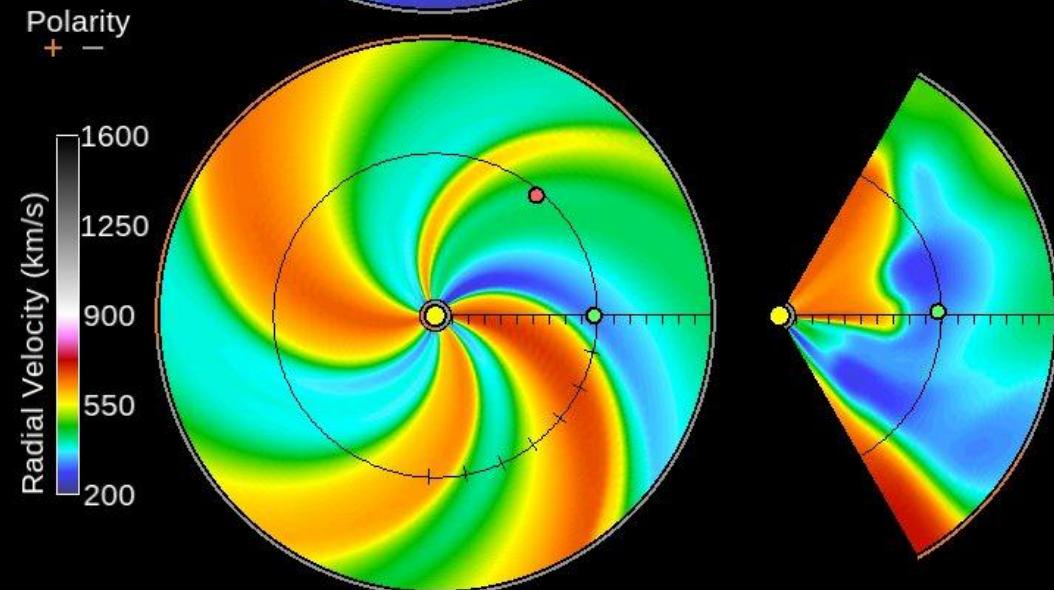
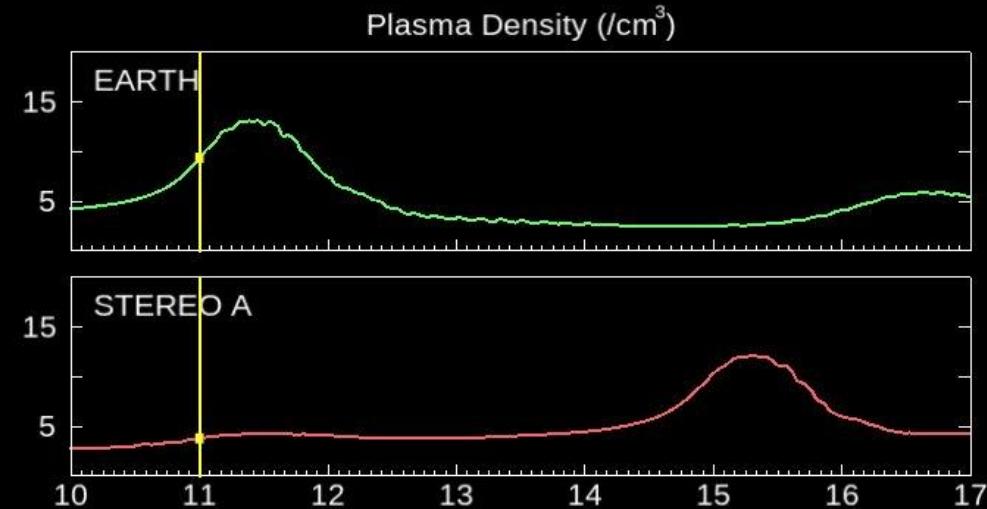
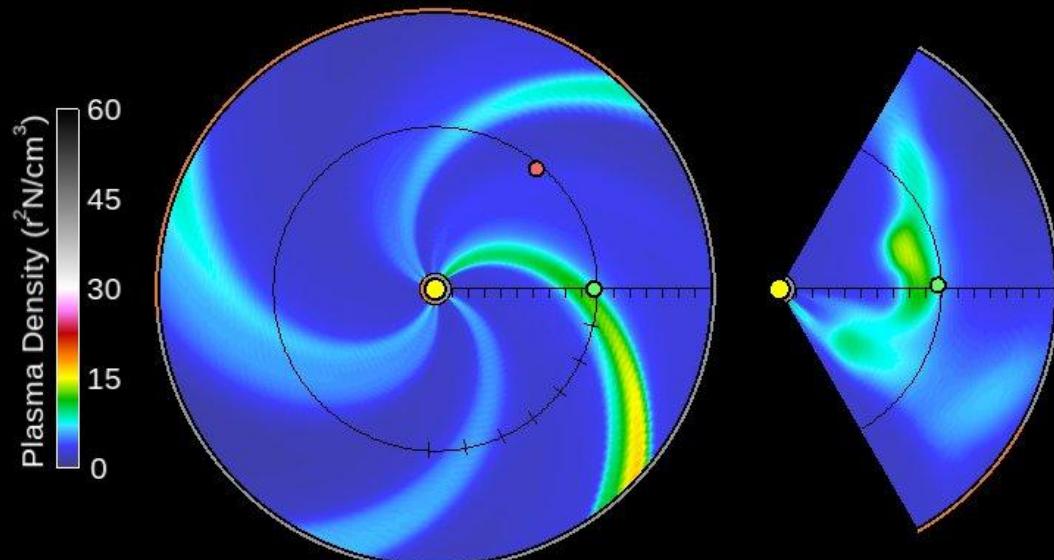
Forecast during my visit to Tromsø

2025-11-14 00:00Z



Forecast 27 days later

2025-12-11 00:00Z



Phone app – My Aurora Forecast

17:06 31%

[Search](#)


My Aurora Forecast & AI...
Northern Lights & ...

[OPEN](#) 

14K RATINGS 4.7 ★★★★★ AGE 4+ Years Old CHART No. 11 Weather

What's New Version History
Version 26.0.0 5d ago
Bug fixes.

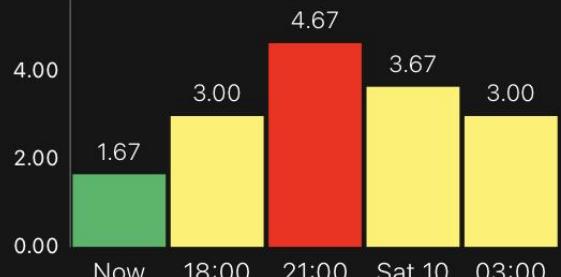
Preview

Carrier 9:32 AM My Aurora Forecast Carrier 9:33 AM Aurora Map

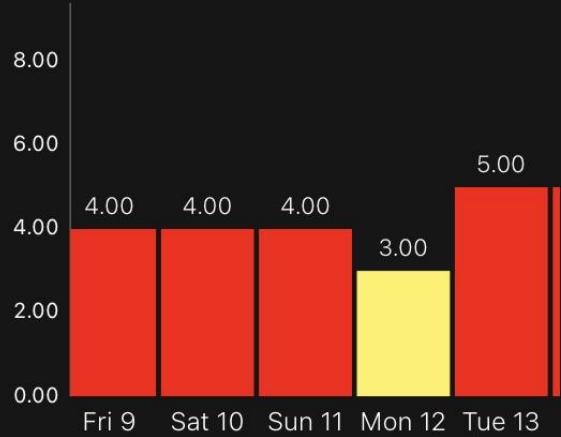
Today Games Apps Arcade Search

17:07 31%

[Forecasts](#) 


Now: 1.67, 18:00: 3.00, 21:00: 4.67, Sat 10: 3.67, 03:00: 3.00

KP Index - Long term forecast


Fri 9: 4.00, Sat 10: 4.00, Sun 11: 4.00, Mon 12: 3.00, Tue 13: 5.00

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Now  Forecasts  Gallery  Sun  Tours

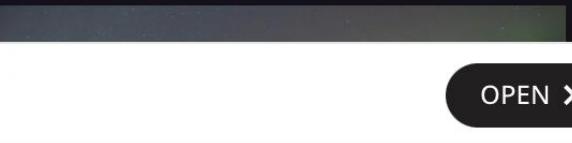
17:08 31%

[Back](#) Live Aurora Webcams

Abisko, Sweden
Source: [Lights Over Lapland](#)


LightsOverLapland.com Fri Jan 09, 2026 06:03:23 PM
Temperature: -15.0°C, 16.1 KPH

Levi, Finland
Source: [Starlapland](#)


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Where to go – get away from city lights





Aurora photography equipment

- Canon EOS 550D digital SLR (18-55mm lens)
- Samyang 14mm F2.8 lens (taped to lock focus!)
- Tripod
- Wired remote control
- 20000 mAh USB battery pack
- USB voltage converter to power camera
- USB powered lens heater + controller
- Spare SD card
- iPhone 8 + stand + remote control



EOS 550D Photos

- 5184 x 3456 pixels = 18Mp
- ISO-1600
- 14mm F2.8 Samyang lens
- Stopped down to F3.4
- Exposure mostly 5 seconds
- Dark frames taken using lenscap











Time-lapse Video

- 5 second exposures taken every ~8 seconds
- RawTherapee used to subtract dark frames
adjust black level, downscale, output as
JPEGs
- VirtualDub used to convert JPEG series into a
video
- 4 frames/sec display rate with linear
interpolation to smooth the flow
- Speedup ~ 32 times

Things I've learnt

- Tape lens to infinity focus before you set off
- Practice using the camera and remote control in the cold and dark
- Use dark frames rather than inbuilt long exposure noise reduction
- Don't go for the smallest/cheapest hire car, and take black bin bags and tape to cover the lights
- Take mobile phone stand and remote control
- You may not even see the aurora – so plan to enjoy other activities and sights



NORSK SELFANGST I NYERE TID













Lights over Lapland

- Real time cameras at Abisko, Sweden
- <https://www.twitch.tv/lightsoverlapland>
- <https://www.twitch.tv/lightsoverlaplandlive>