SOLAR WEATHER
7 APR 2026

Lewis Thompson
W5IFQ

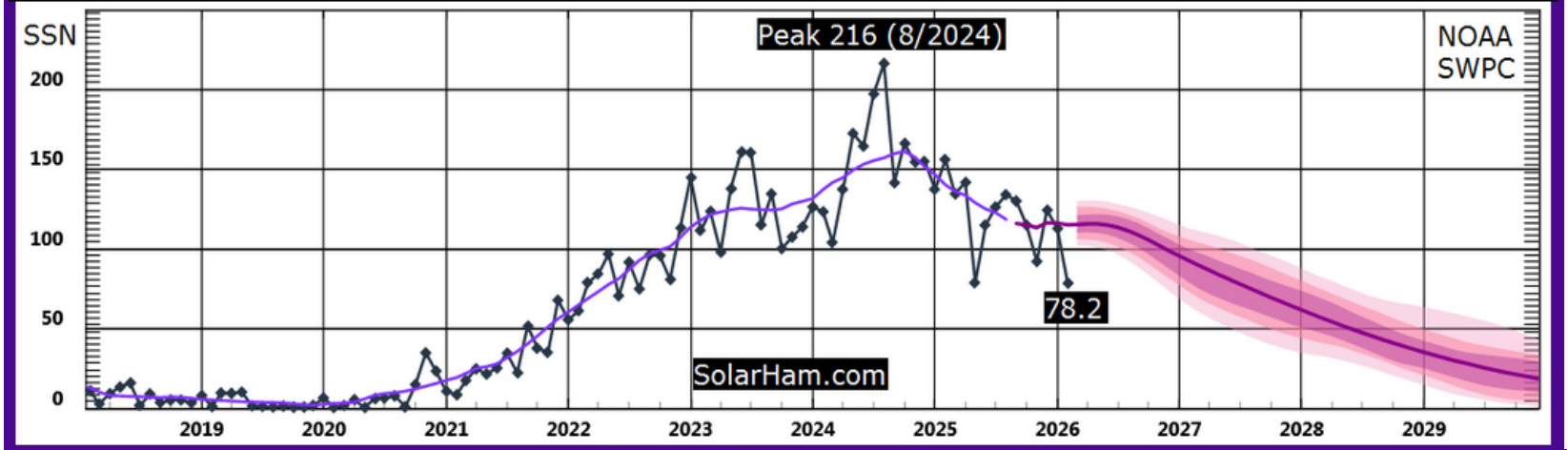
Taken by Napartaq on April 2, 2026 @ Whittier, Alaska

Solar Cycle 25 Progression

(Updated March 3, 2026)

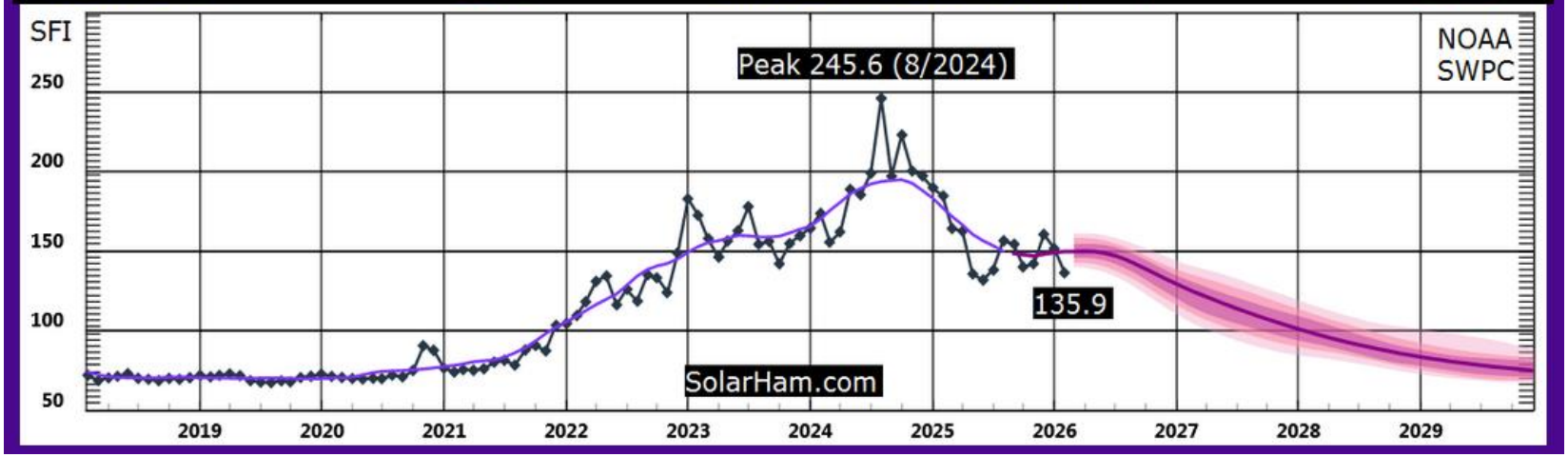
Sunspot Number Progression (February 2026)

Predicted SSN: **114.8** Actual: **78.2** Latest Smoothed Predicted SSN (8/2025): - Actual: **118.2**



10.7cm Solar Flux Progression (February 2026)

Predicted SFI: **149.3** Actual: **135.9** Latest Smoothed Predicted SFI (8/2025): ---.- Actual: **149.5**



SolarHam

Indices: (4/7 @ 00:35 UTC) SFI 116 ▼ 2 SSN 112

3 Day Geomagnetic Forecast

Apr. 7	Apr. 8	Apr. 9
2-3 (G0)	2 (G0)	2 (G0)
Max Kp		
M-Lat 05% H-Lat 25%	M-Lat 01% H-Lat 20%	M-Lat 01% H-Lat 20%
Probabilities		

Latest SWPC Forecast (@ 00:30 + 12:30 UTC)

Detailed Forecast

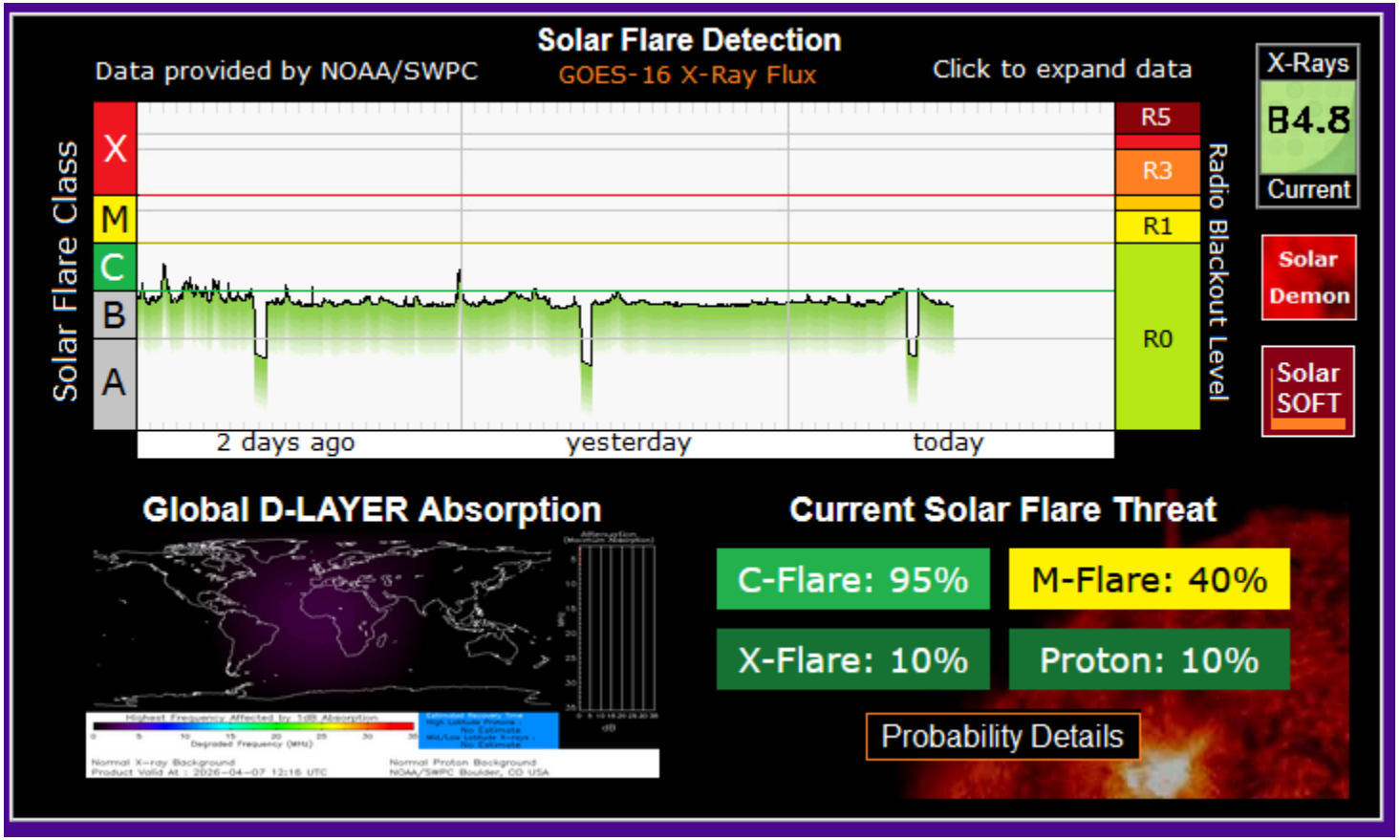
Visible Sunspot Regions

Sunspot Summary | SRS

AR 4412	B	N10W04	*Stable*
AR 4411	B	S06E05	*Stable*
AR 4409	B	N02W43	*Stable*
AR 4408	A	N08W42	*Stable*
AR 4406	A	N07W68	*Declining*
AR 4405	B	S28W60	*Declining*
AR 4404	A	N13W73	*Stable*

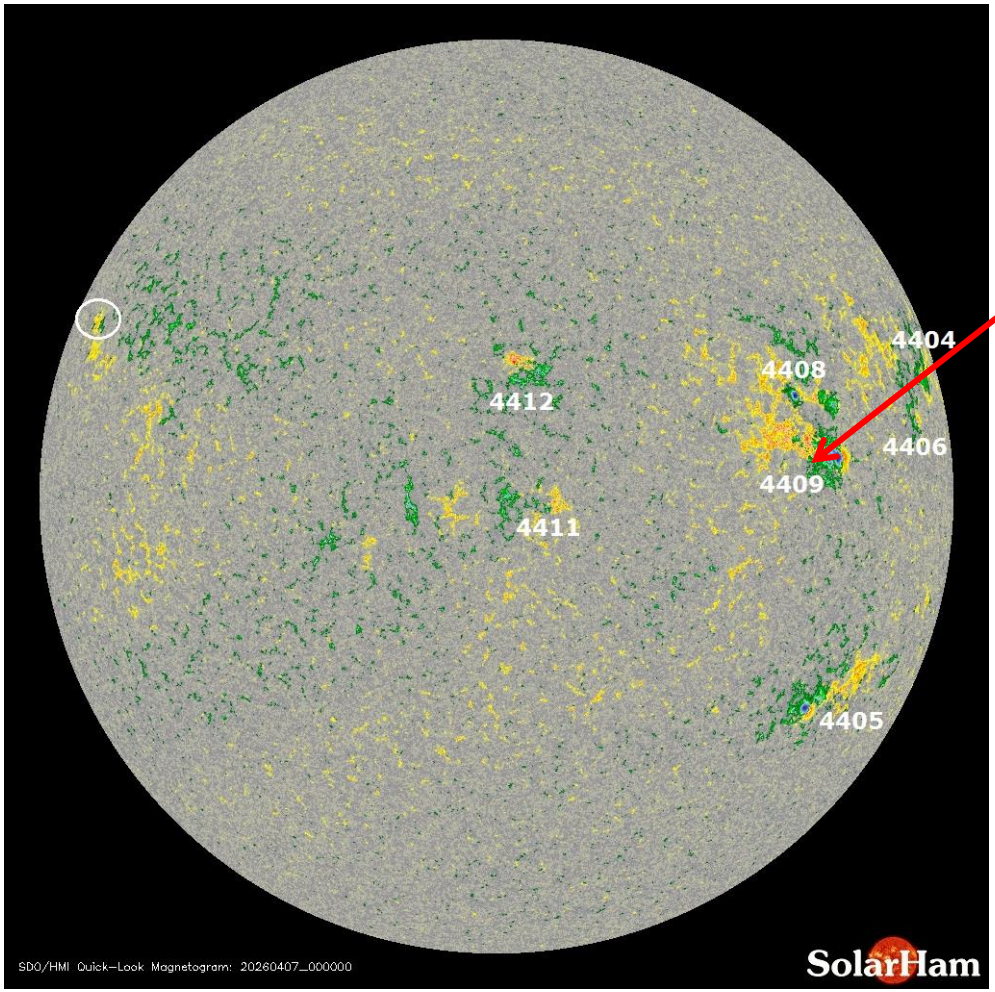
Updated @ 00:35 UTC (April 7)

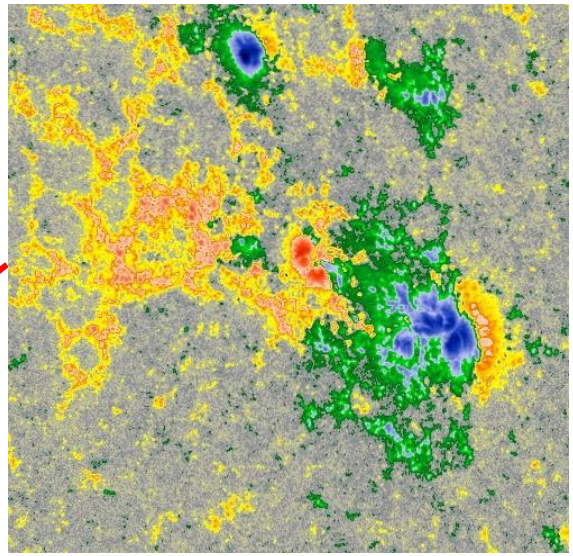
SolarHam


Solar Flare Detection
Data provided by NOAA/SWPC
GOES-16 X-Ray Flux
Click to expand data
Solar Flare Class
X
M
C
B
A
2 days ago
yesterday
today
R5
R3
R1
R0
Radio Blackout Level
X-Rays
B4.8
Current
Solar Demon
Solar SOFT
Global D-LAYER Absorption
Current Solar Flare Threat
C-Flare: 95%
M-Flare: 40%
X-Flare: 10%
Proton: 10%
Probability Details

Sun Spots

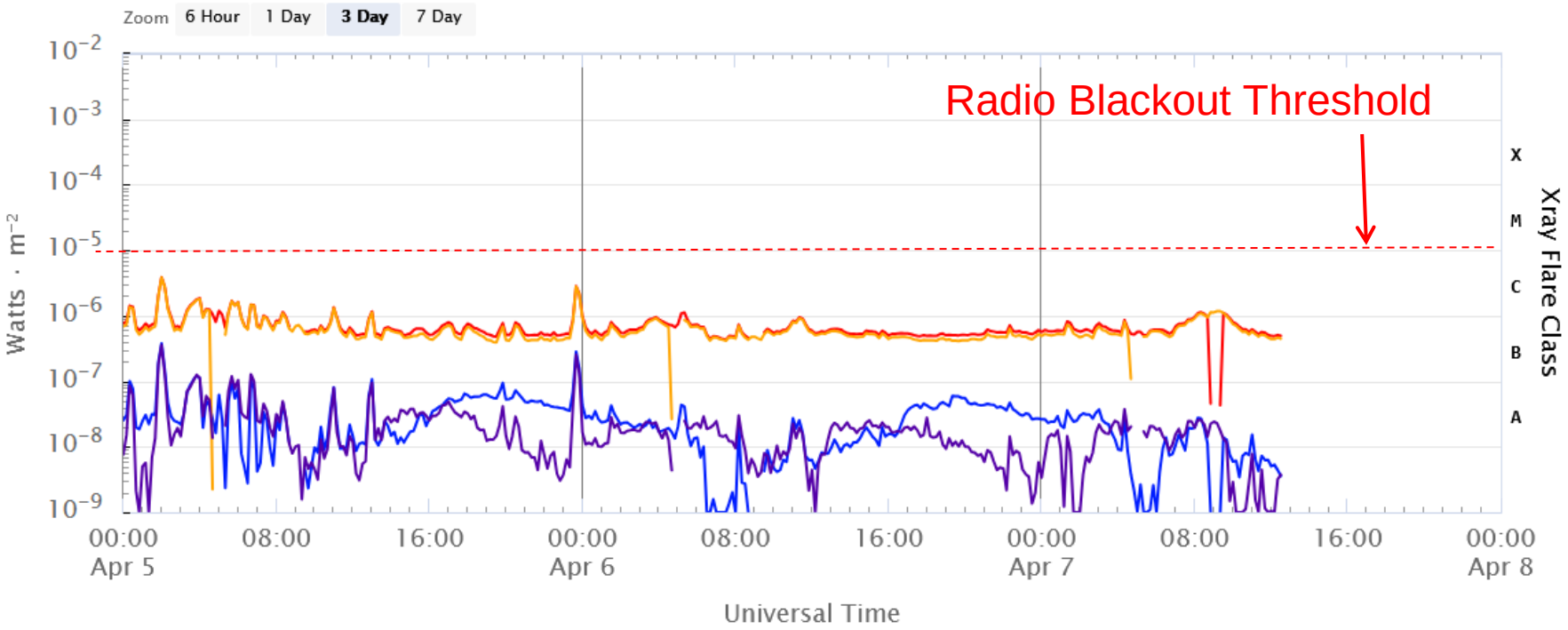
Magnetogram Image (Updated April 7, 2026)



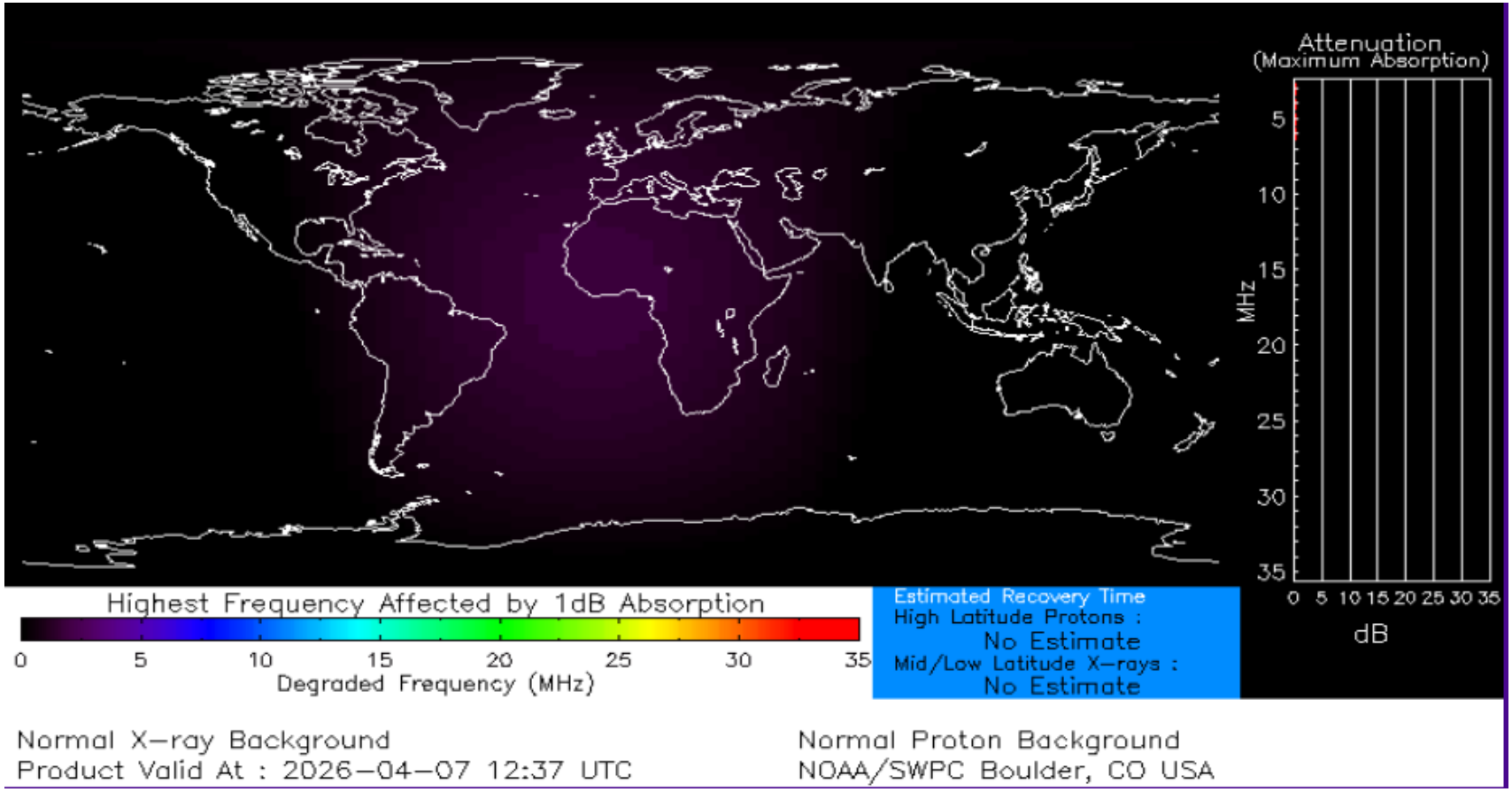


Beta or Beta-Gamma?

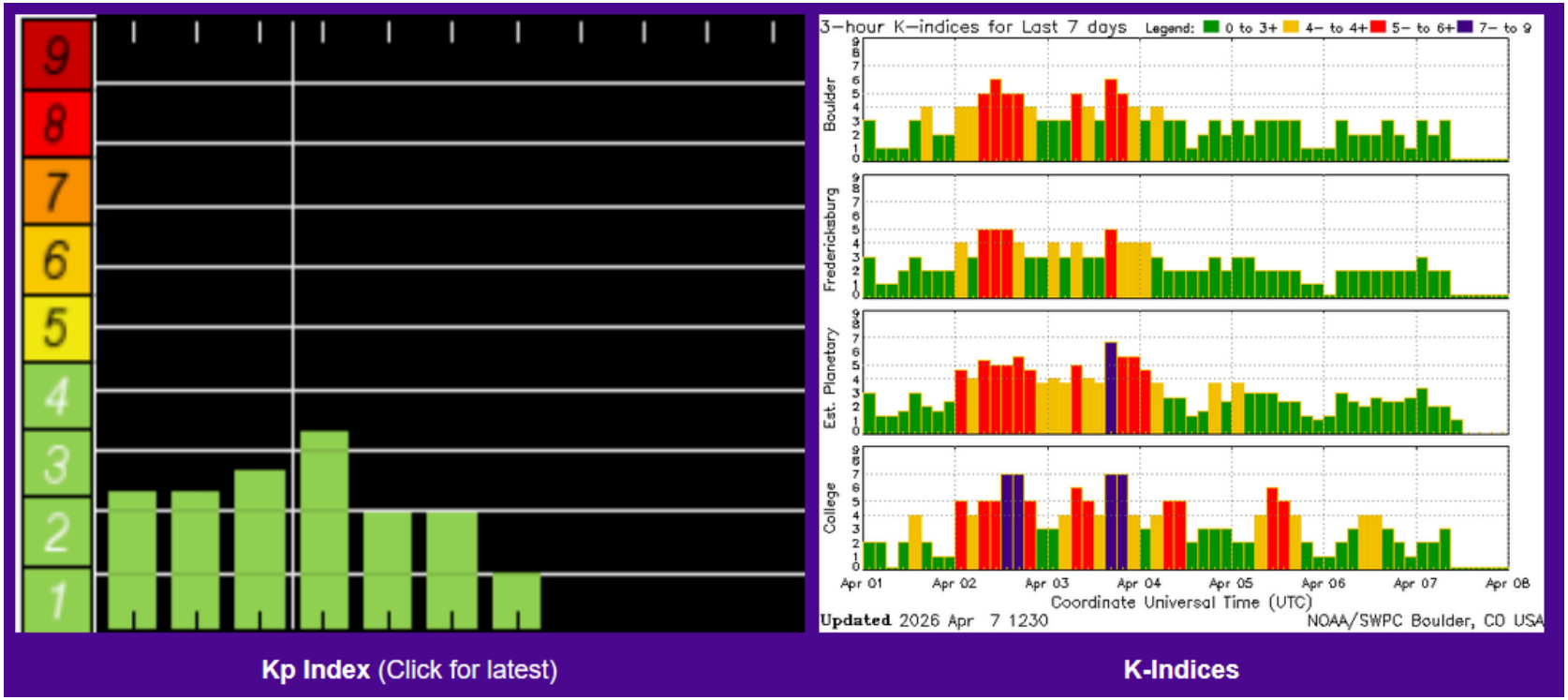
Solar X-Ray Flux: 5 - 7 APR 2026



NOAA – D-Region Absorption Predictions



Earth's Geomagnetic Activity



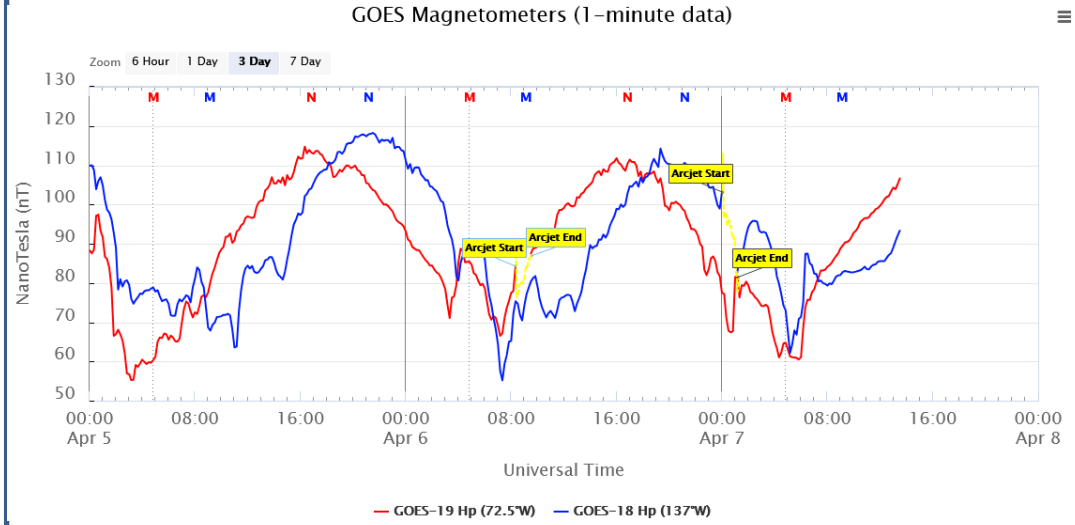
Geomagnetic Conditions: 7 APR 2026

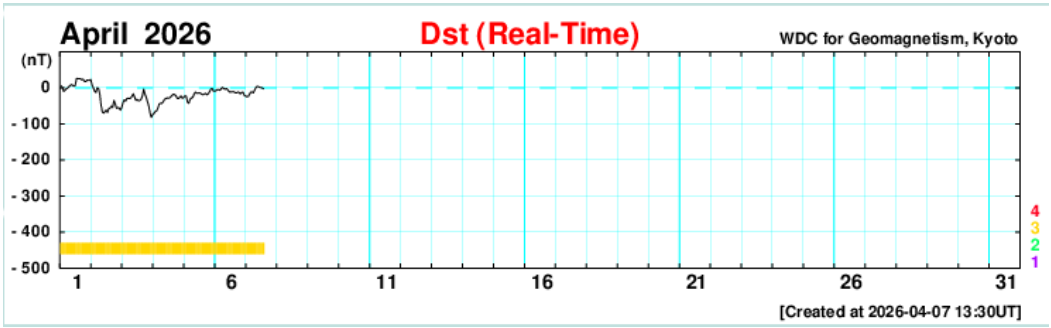
Solar wind:
Bz = -0.19 nT
speed = 444 km/sec
density = 2.04 protons/cm^3

(From – NOAA DSCOVR
In L1, Lagrange Point)

Dst = -3 nT (Ring Field)

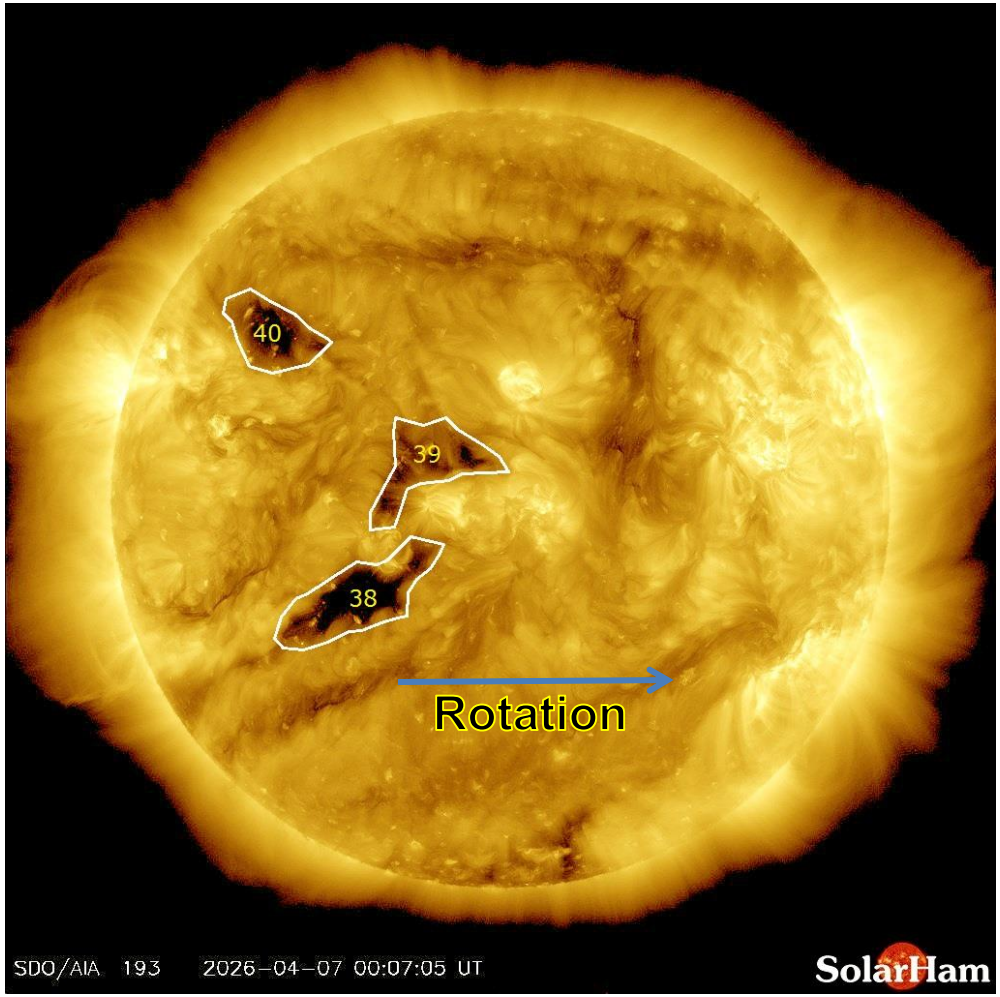
(From – Data Analysis Center
For Geomagnetics and Space
Magnetism – Kyoto University)





From – GOES 18, 19
In geostationary orbit

Coronal Holes – 7 APR 2026

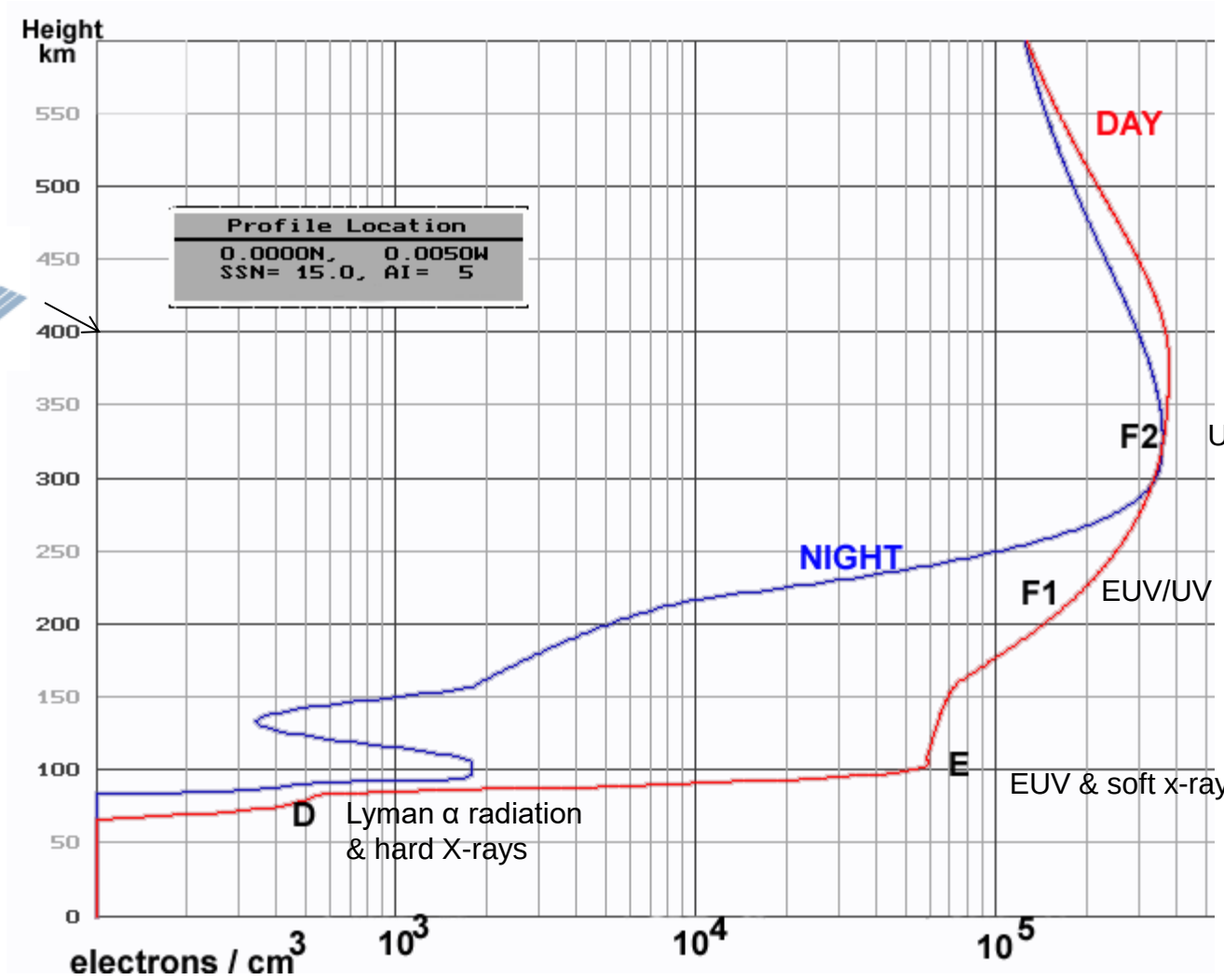


Analysis

There are currently no large coronal holes facing Earth.

Ionosphere Creation

Gravity



Solar Radiation

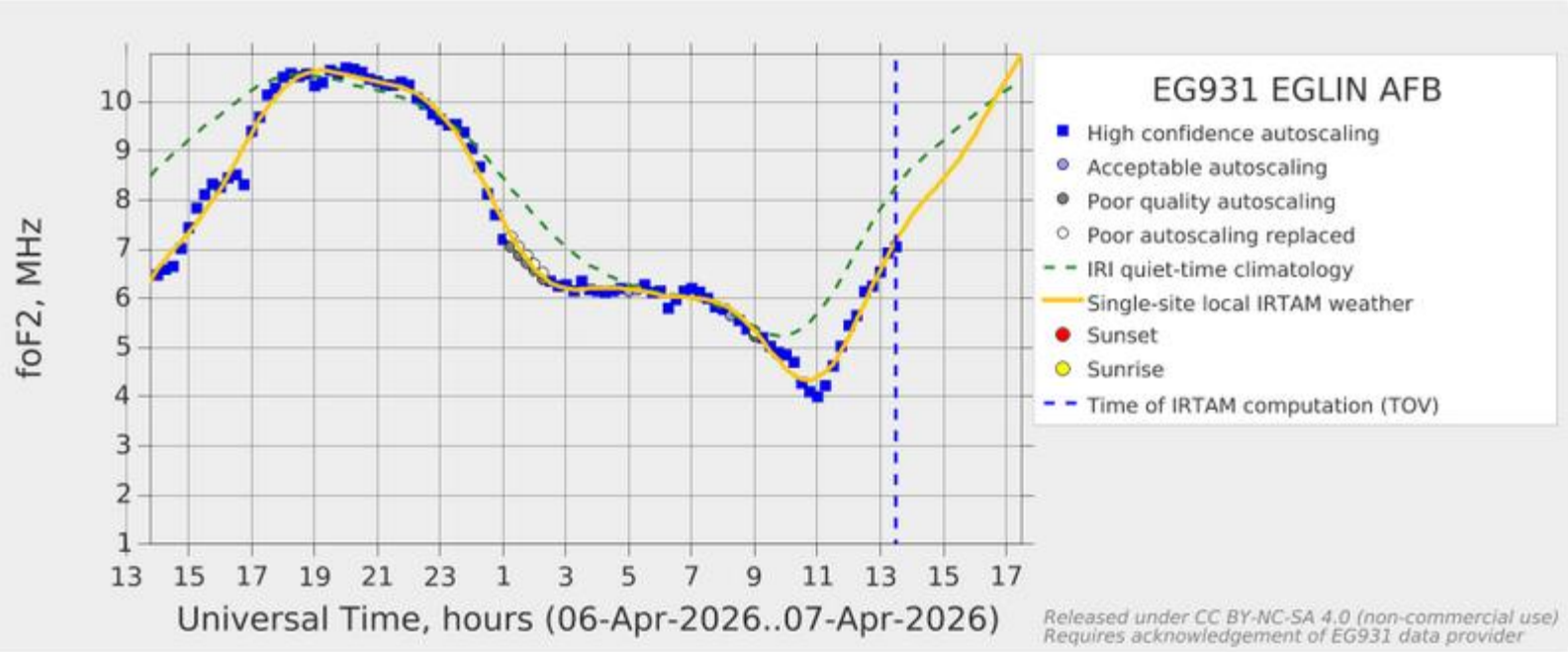
Monoatomic oxygen

Austin Ionosonde Status

- GIRO is presently doing a software rebuild but GAMBIT is working for Eglin AFB Ionosonde. Austin Ionosonde was heard sounding at my QTH, but GAMBIT plots are modeled only, but appear to be accurate, based on Eglin plot and MARS net performance (Critical Frequency).

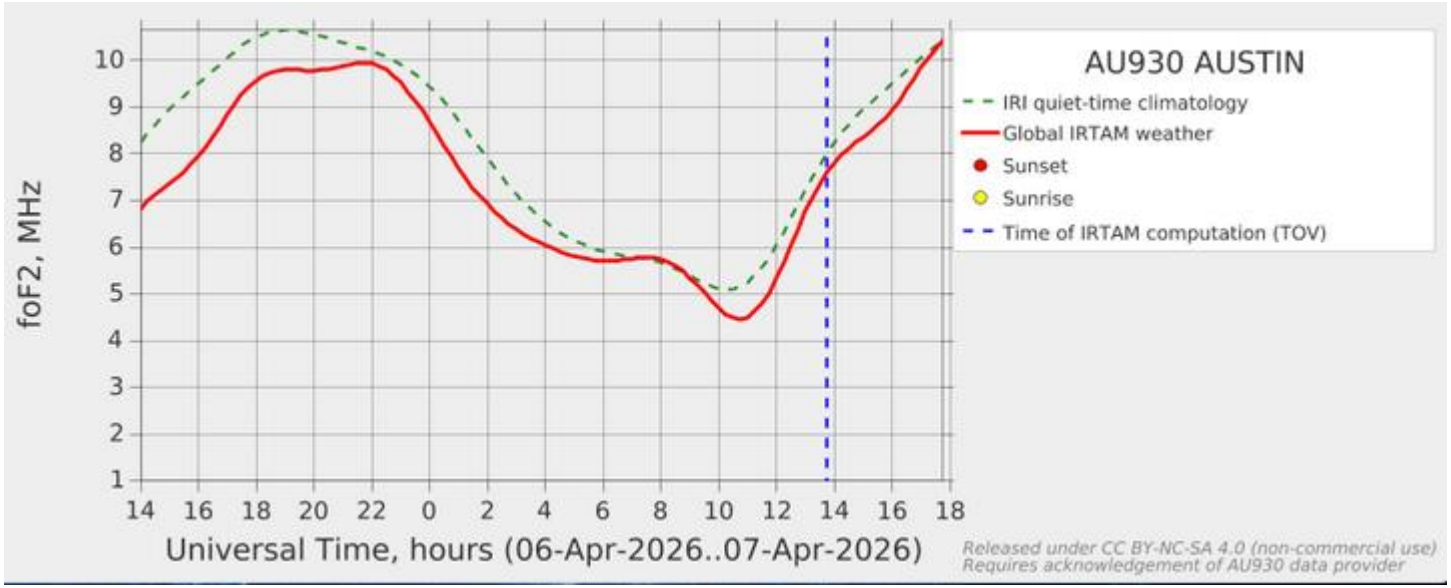
GAMBIT foF2 Trending Chart for Eglin Ionosonde

https://www.region6armymars.org/resources/solarweather.php



GAMBIT foF2 Trending Chart for Austin Ionosonde – Model only

https://www.region6armymars.org/resources/solarweather.php

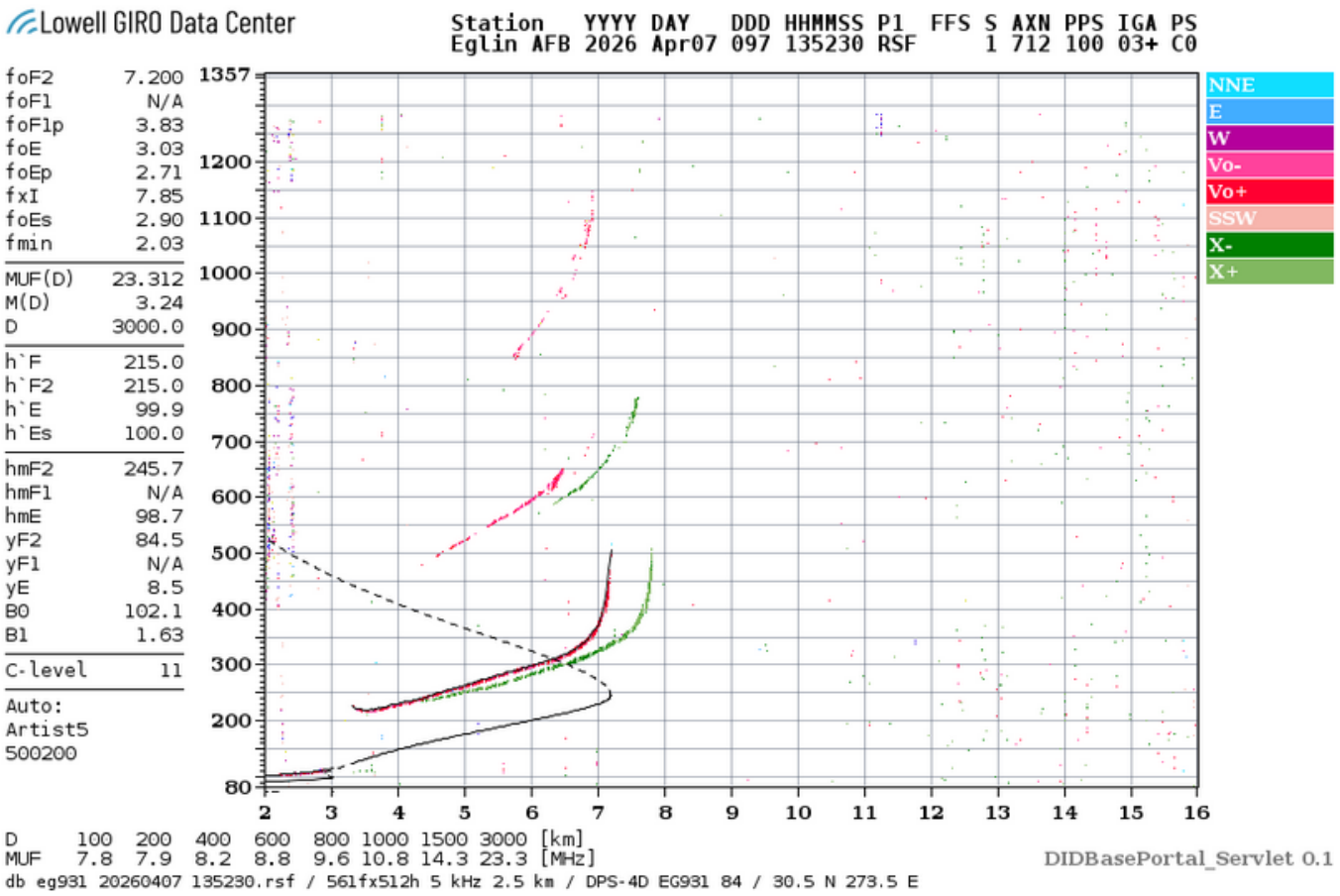


Use of GIRO DIDBASE

https://giro.uml.edu/didbase/

Eglin AFB
Or
Austin

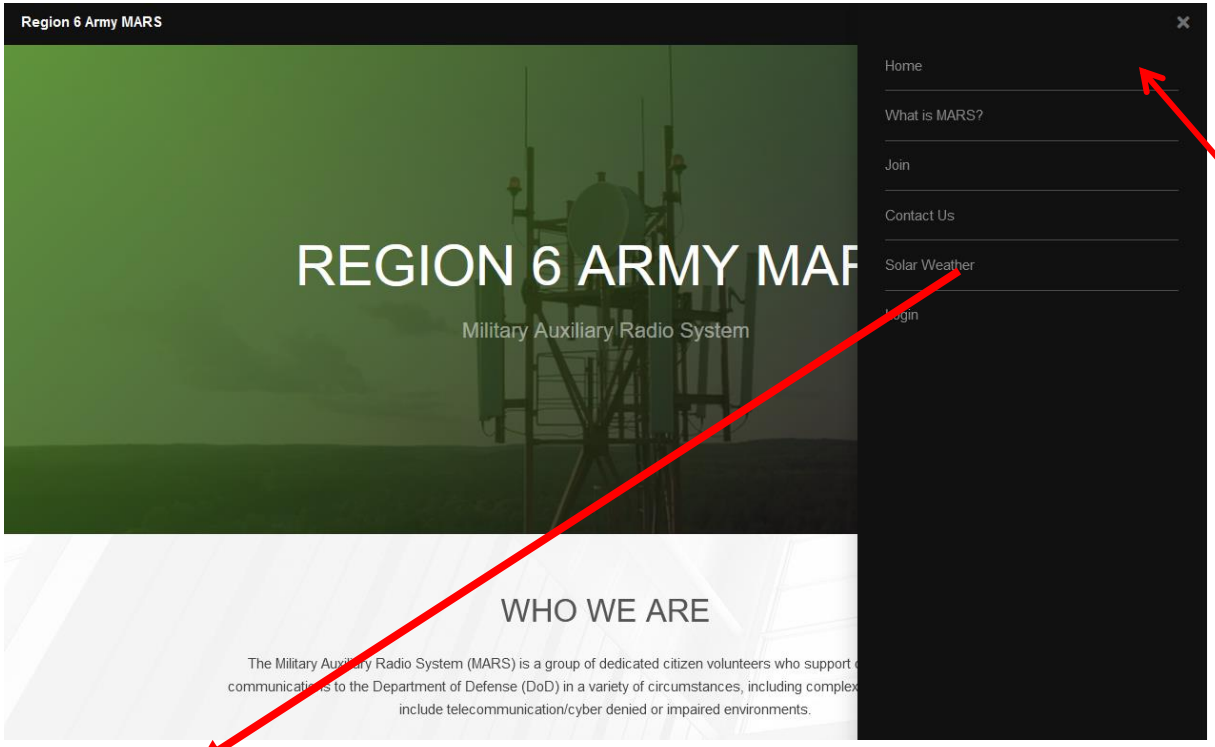
Eglin Ionosonde – 0852 DST



Time Shift for Eglin Ionosonde

- Eglin AFB Ionosonde is east of Austin at about the same Latitude so sun angle is about the same (same solar insolation).
- What happens to the Ionosphere over Eglin will occur over Austin about 45 minutes later.
- This is simply a Longitude difference converted to time.
- So look at Eglin's foF2 45 minutes earlier to see what is going to happen over Austin.
- The most rapid change in foF2 occurs as the sun is rising and setting (morning and evening).

Solar Weather Data



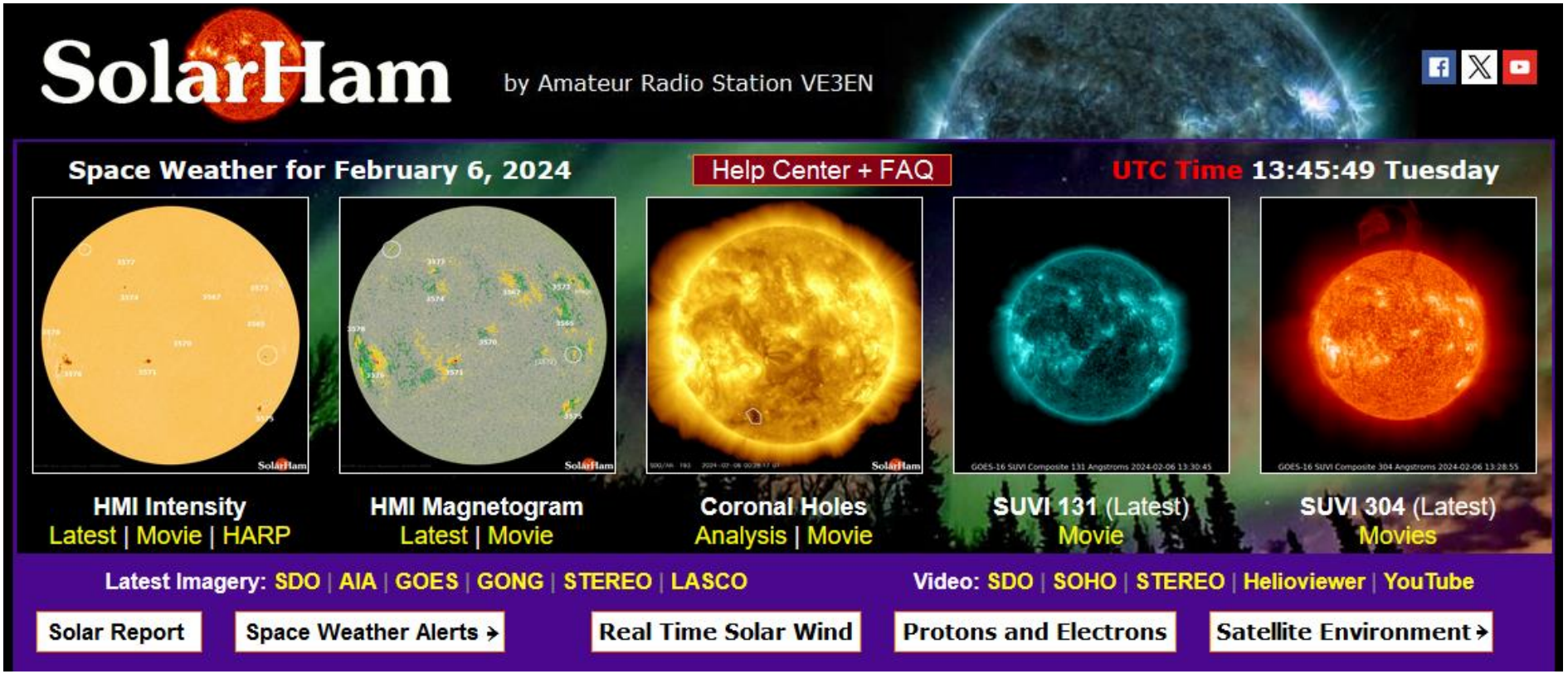
Menu

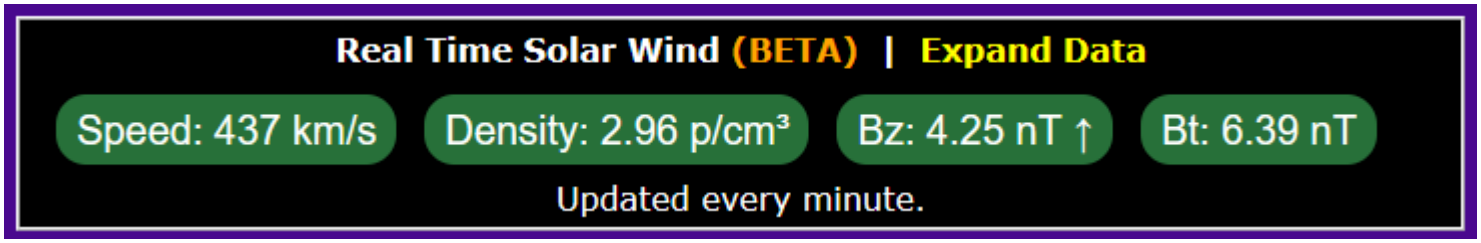
Solar Weather

All Ionosondes_
GAMBIT URL

- GAMBIT - Global Assimilative Model of Bottomside Ionosphere Timeline
  - Boulder
  - Eglin

- NOAA Solar Weather - Solar Weather plots of Kp and X-Ray and other solar emissions.
- Solen Solar Weather - Good general solar forecast from an individual.
- Solar Ham - SolarHam provides real time solar news, as well as consolidated data from various sources.


SolarHam
by Amateur Radio Station VE3EN
Space Weather for February 6, 2024
Help Center + FAQ
UTC Time 13:45:49 Tuesday
HMI Intensity
Latest | Movie | HARP
HMI Magnetogram
Latest | Movie
Coronal Holes
Analysis | Movie
SUVI 131 (Latest)
Movie
SUVI 304 (Latest)
Movies
Latest Imagery: SDO | AIA | GOES | GONG | STEREO | LASCO
Video: SDO | SOHO | STEREO | Helioviewer | YouTube
Solar Report
Space Weather Alerts
Real Time Solar Wind
Protons and Electrons
Satellite Environment


Real Time Solar Wind (BETA) | Expand Data
Speed: 437 km/s
Density: 2.96 p/cm³
Bz: 4.25 nT ↑
Bt: 6.39 nT
Updated every minute.

spaceweather.com

News and information about the Sun-Earth environment

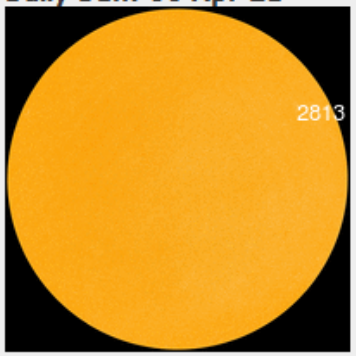
https://www.spaceweather.com/

Current Conditions

Solar wind
speed: **314.8** km/sec
density: **9.9** protons/cm^3
more data: ACE, DSCOVR
Updated: Today at 1225 UT

X-ray Solar Flares
6-hr max: **A1** 1027 UT Apr06
24-hr: **A1** 1515 UT Apr05
explanation | more data
Updated: Today at: 1230 UT

Daily Sun: 06 Apr 21



Sunspot AR2813 is decaying, and poses no threat for strong flares.
Credit: SDO/HMI

FLYING TO THE VOLCANO: Iceland's Geldingadalur volcano has turned into an popular tourist attraction---especially since auroras were sighted above the glowing lava. Early this morning, Tuesday, April 6th, Brian Emfinger saw auroras before he even reached the Reykjanes peninsula:

QUESTIONS?

Lewis Thompson

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