

proba-2



From PROBA2/SWAP to Solar Orbiter/EUI: Exploring the outer edge of the EUV corona

D. Berghmans^[1], E. D'Huys^[1], A. Zhukov^[1], F. Auchère^[2]

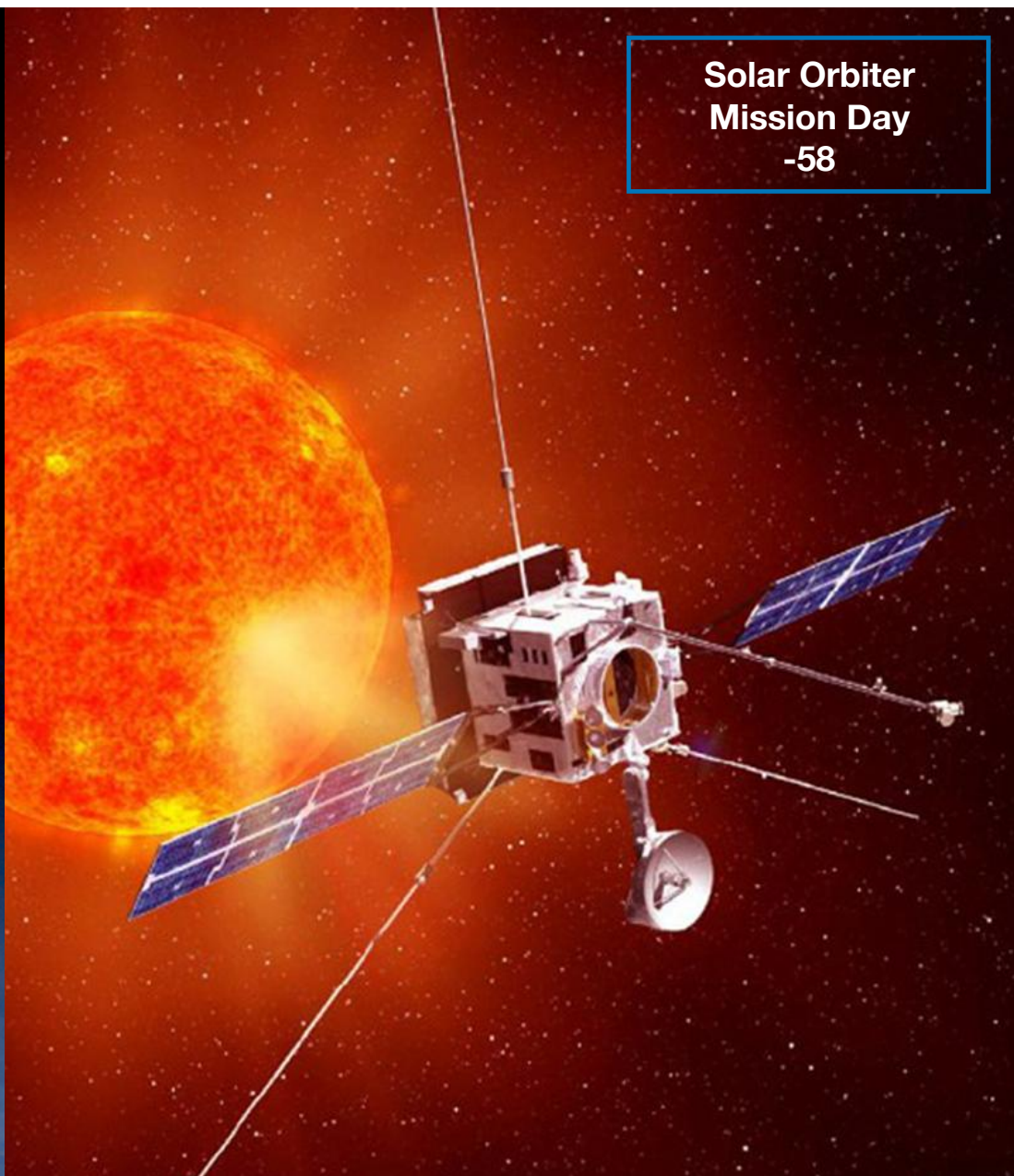
[1] Royal Observatory of Belgium & [2] Institut d'Astrophysique Spatiale

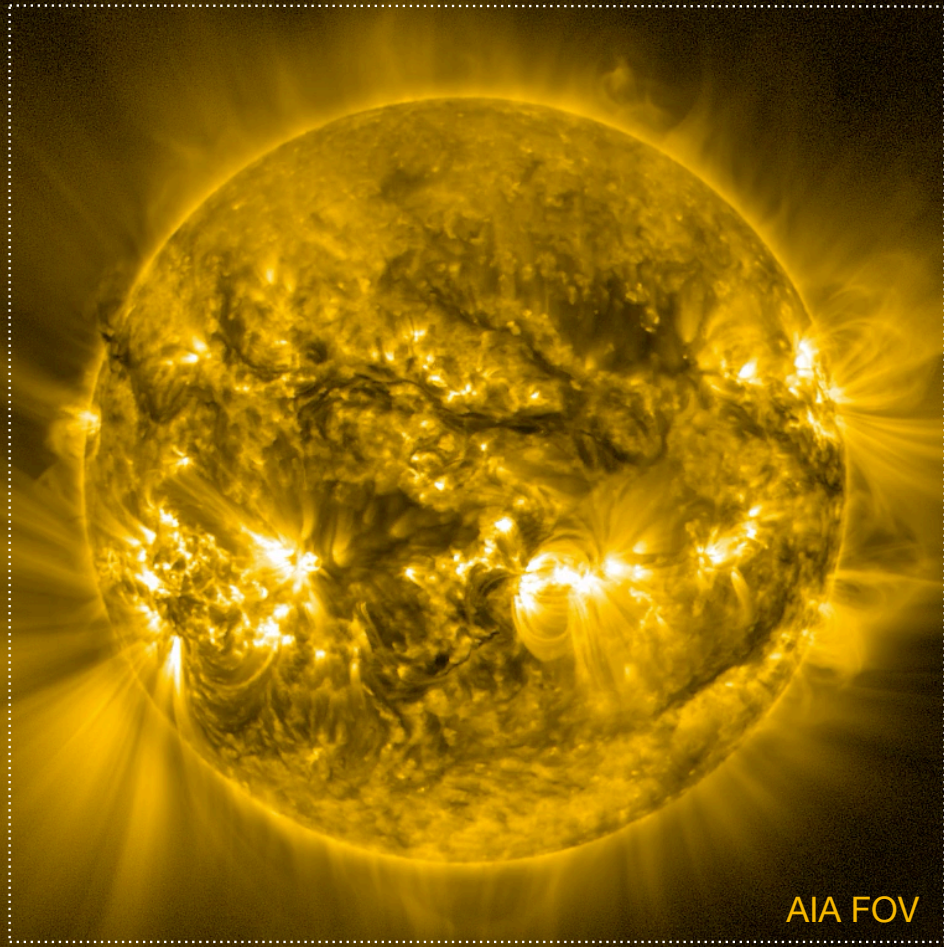


PROBA2
Mission Day
3689



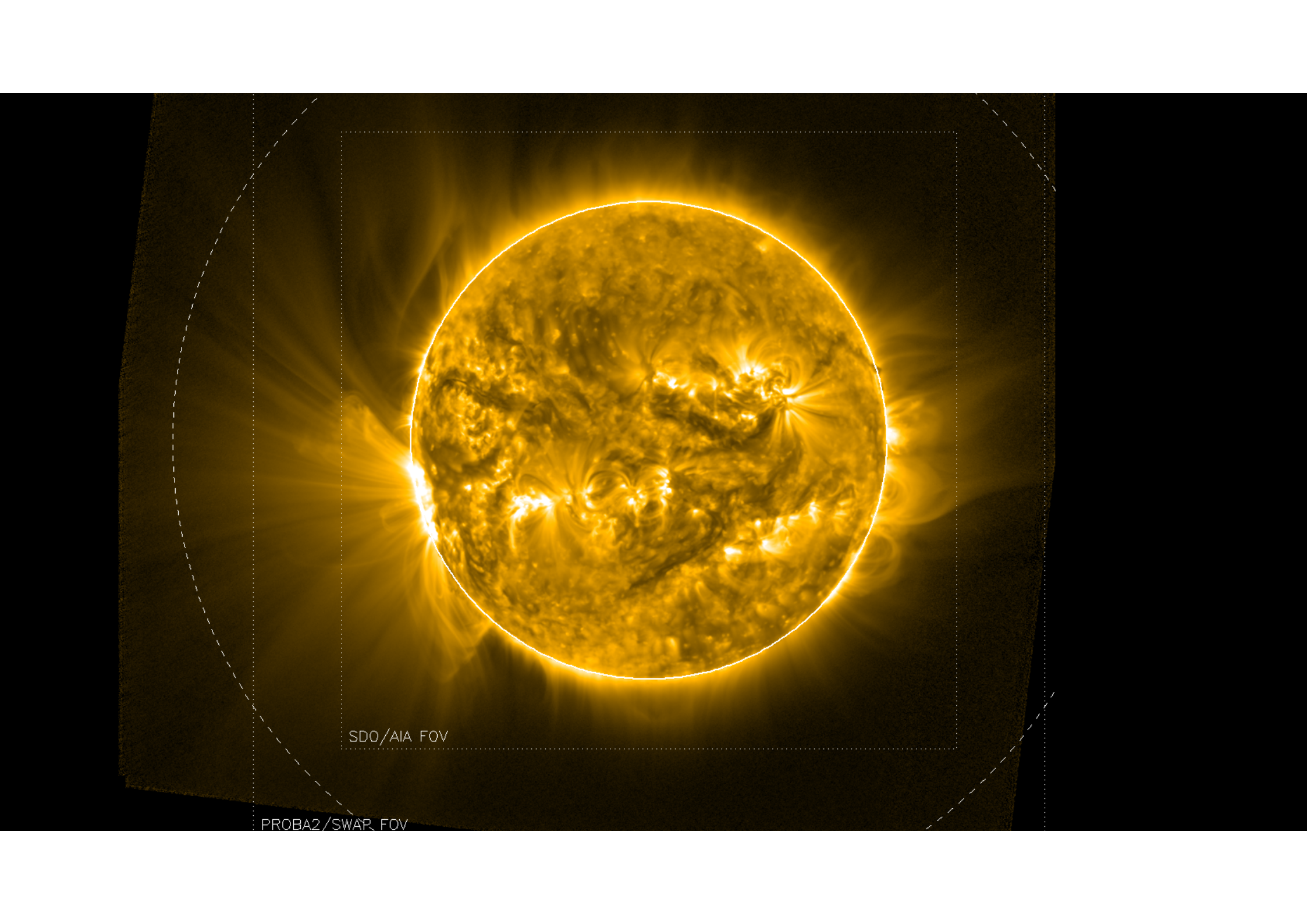
Solar Orbiter
Mission Day
-58





AIA FOV

PROBA2/SWAP 17.4nm 2014-11-16 03:53:32

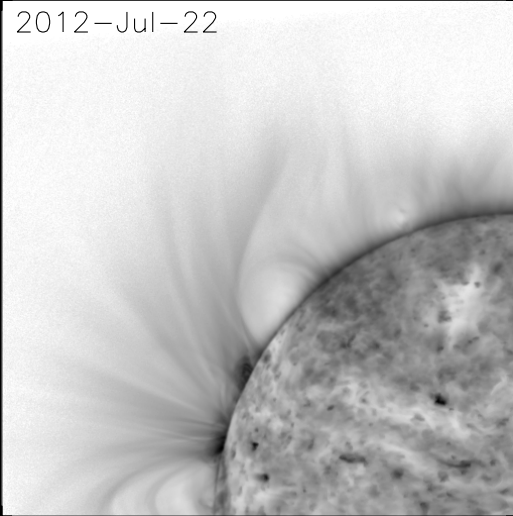


SDO/AIA FOV

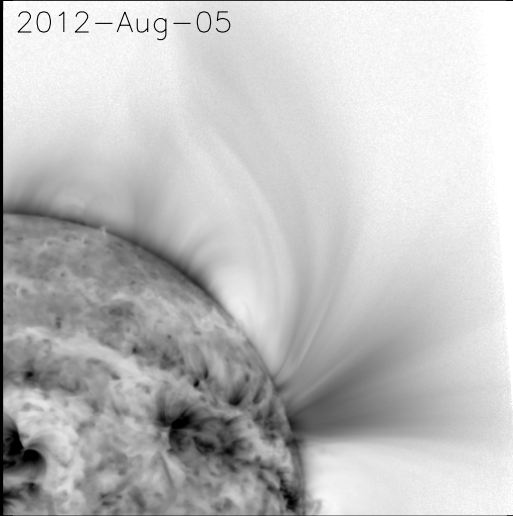
PROBA2/SWAP FOV

Long-lived unexpected arches

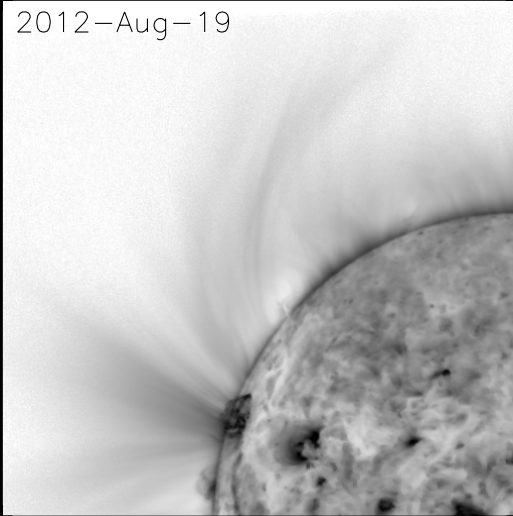
2012-Jul-22



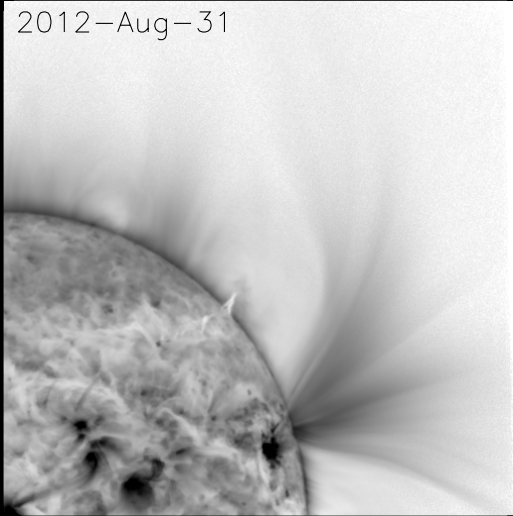
2012-Aug-05



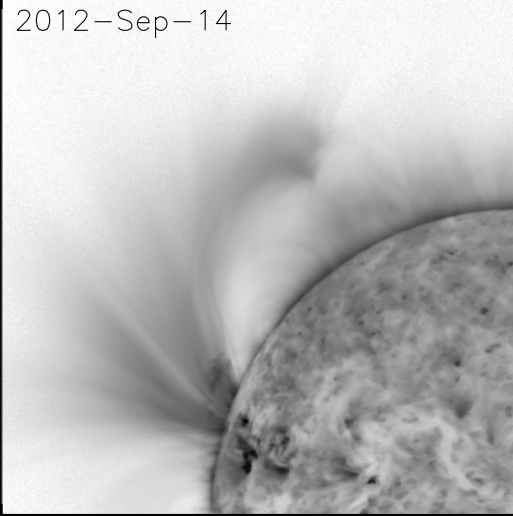
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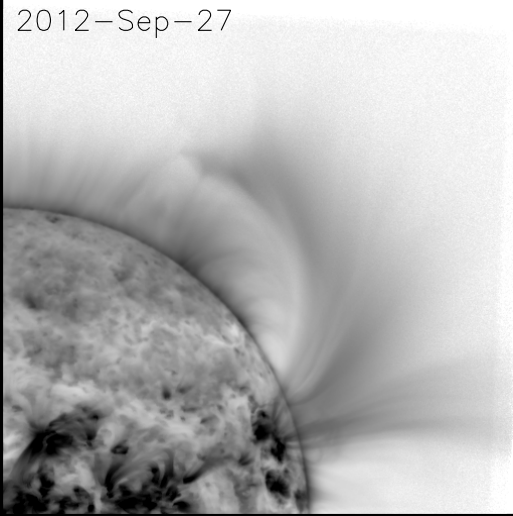
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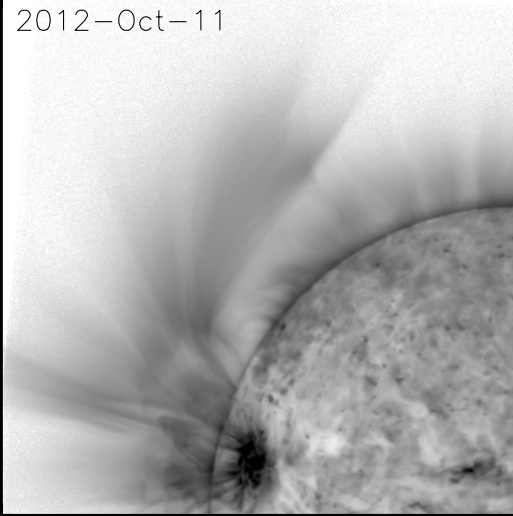
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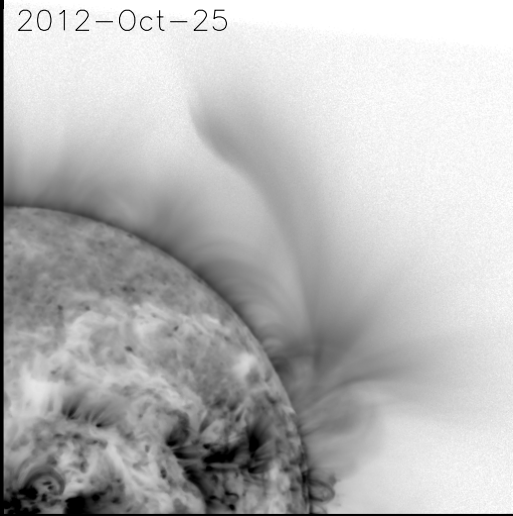
2012-Sep-27



2012-Oct-11

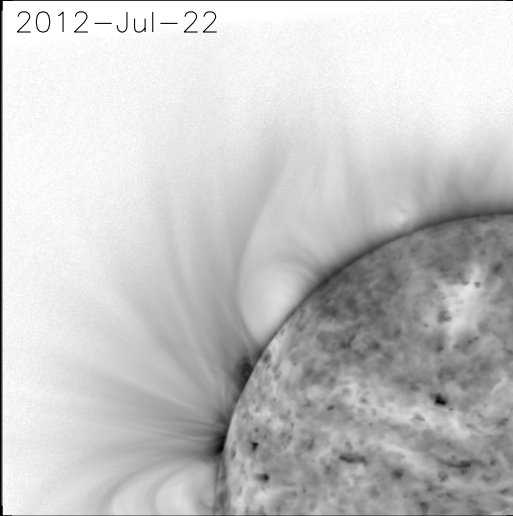


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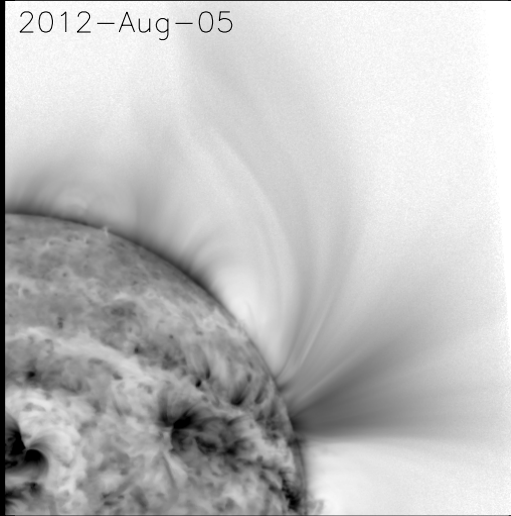


Long-lived unexpected arches

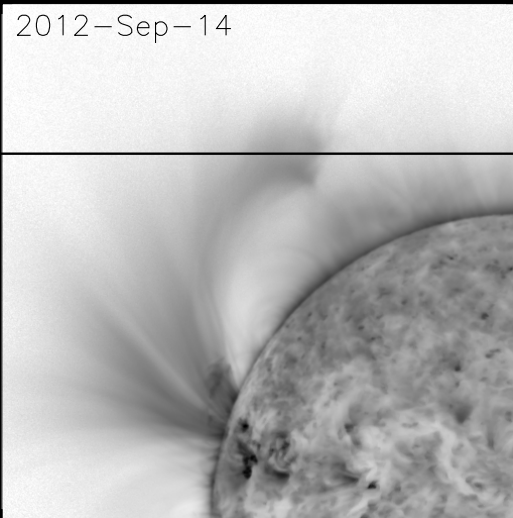
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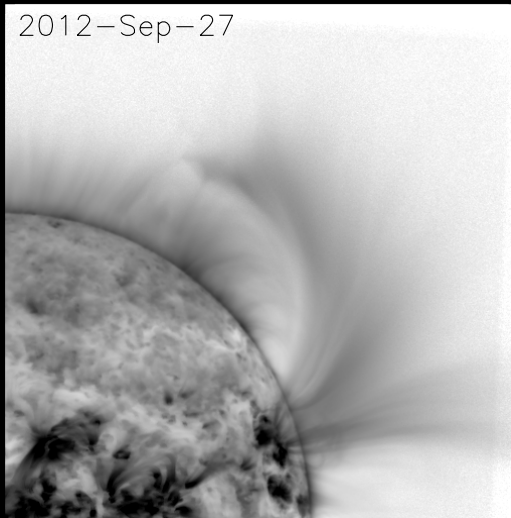
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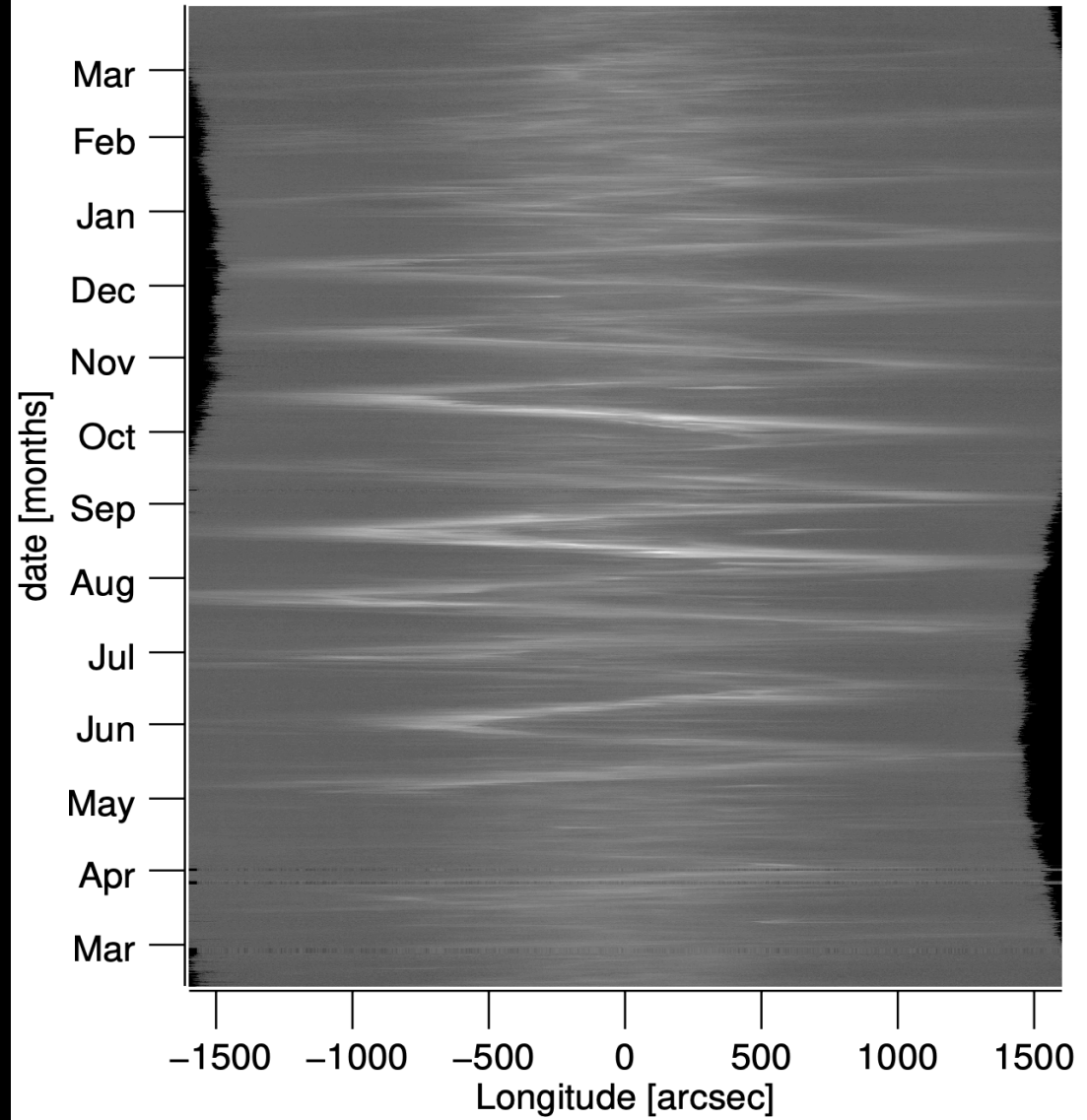


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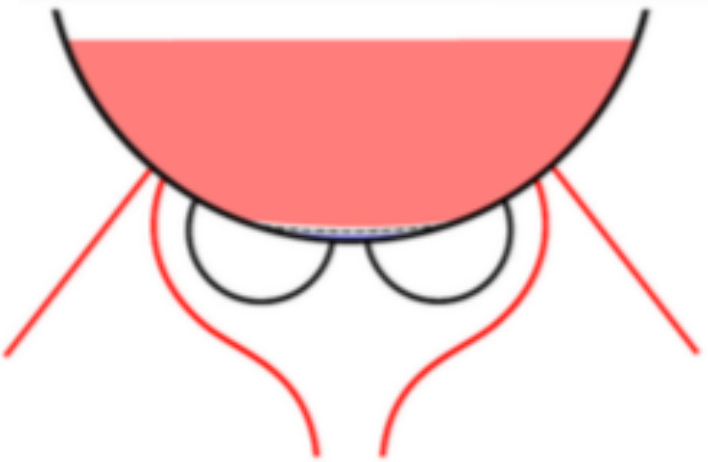
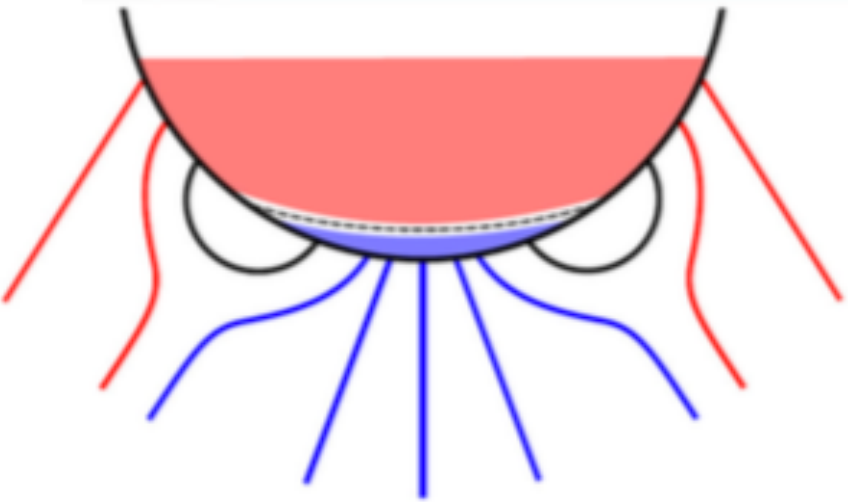
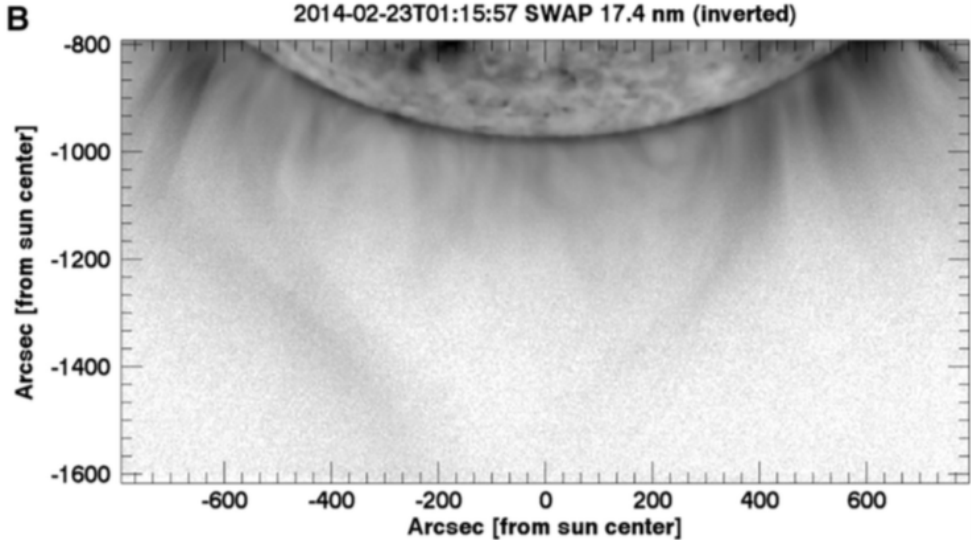
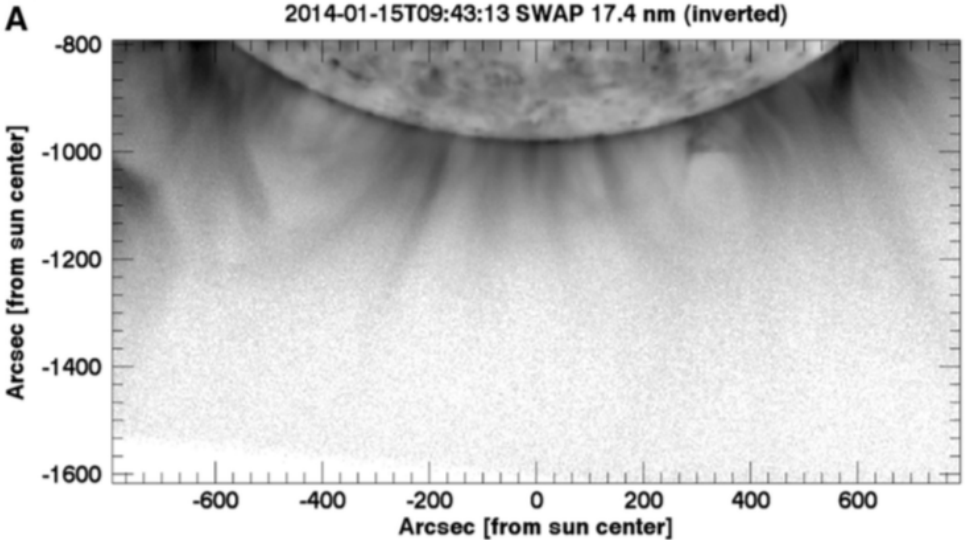


Mierla et al, 2019 Sol Phys submitted

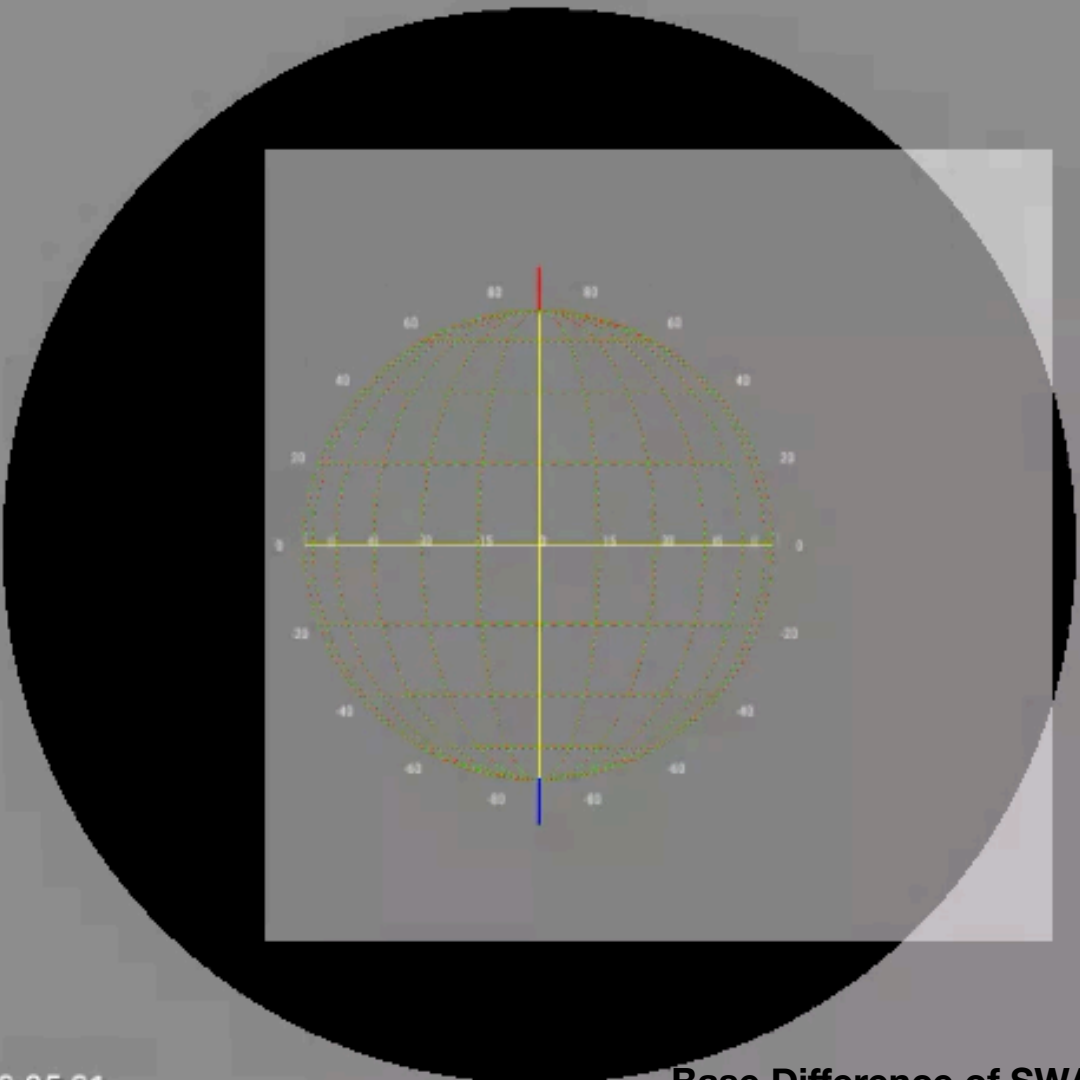
CRs2147-2161, NORTH, Dist = 1.3Rs
[2014-02-11 17:23 ; 2015-03-27 22:18]

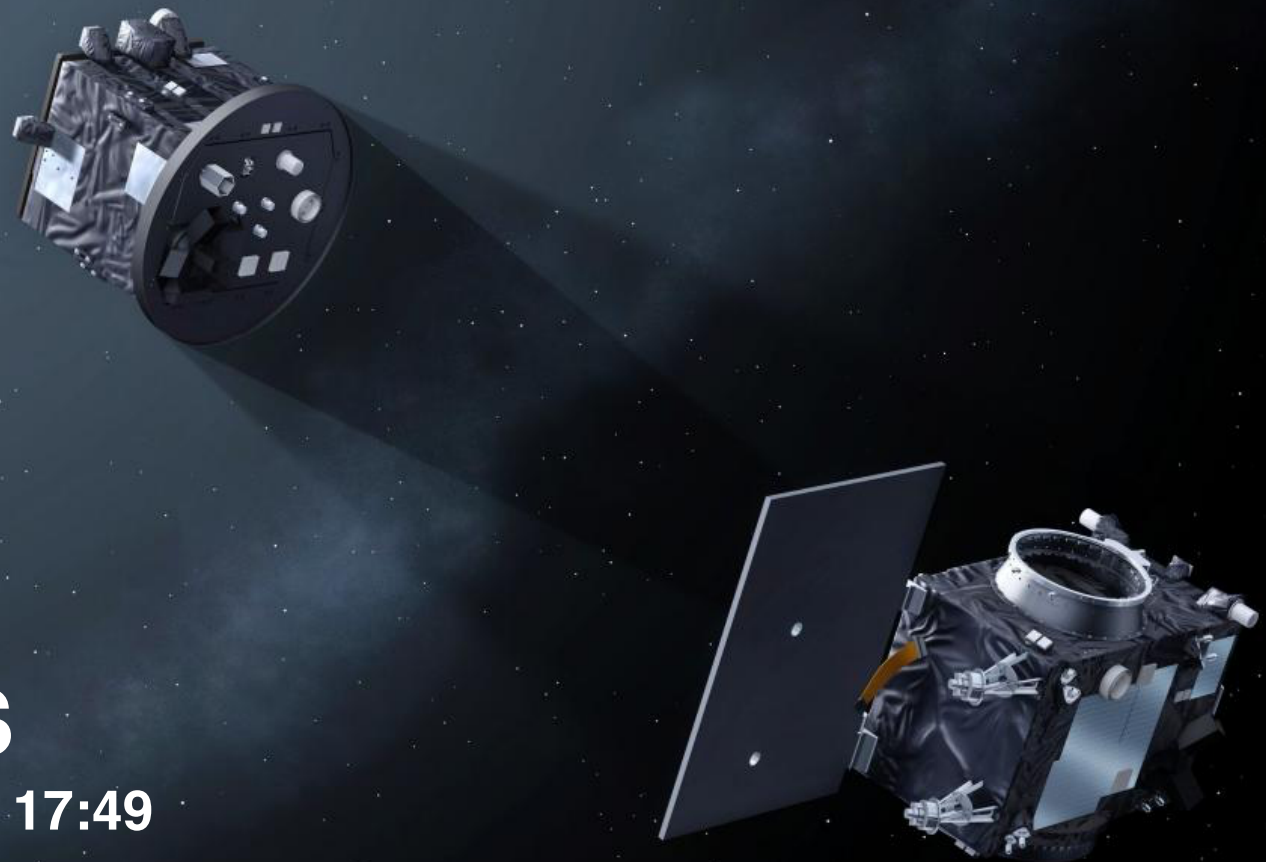
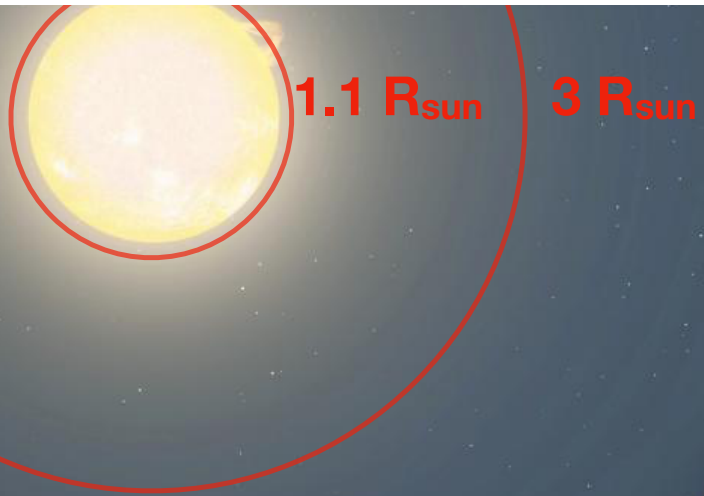


Switching of the polar magnetic fields



Eruptions observed in overlapping fields of view

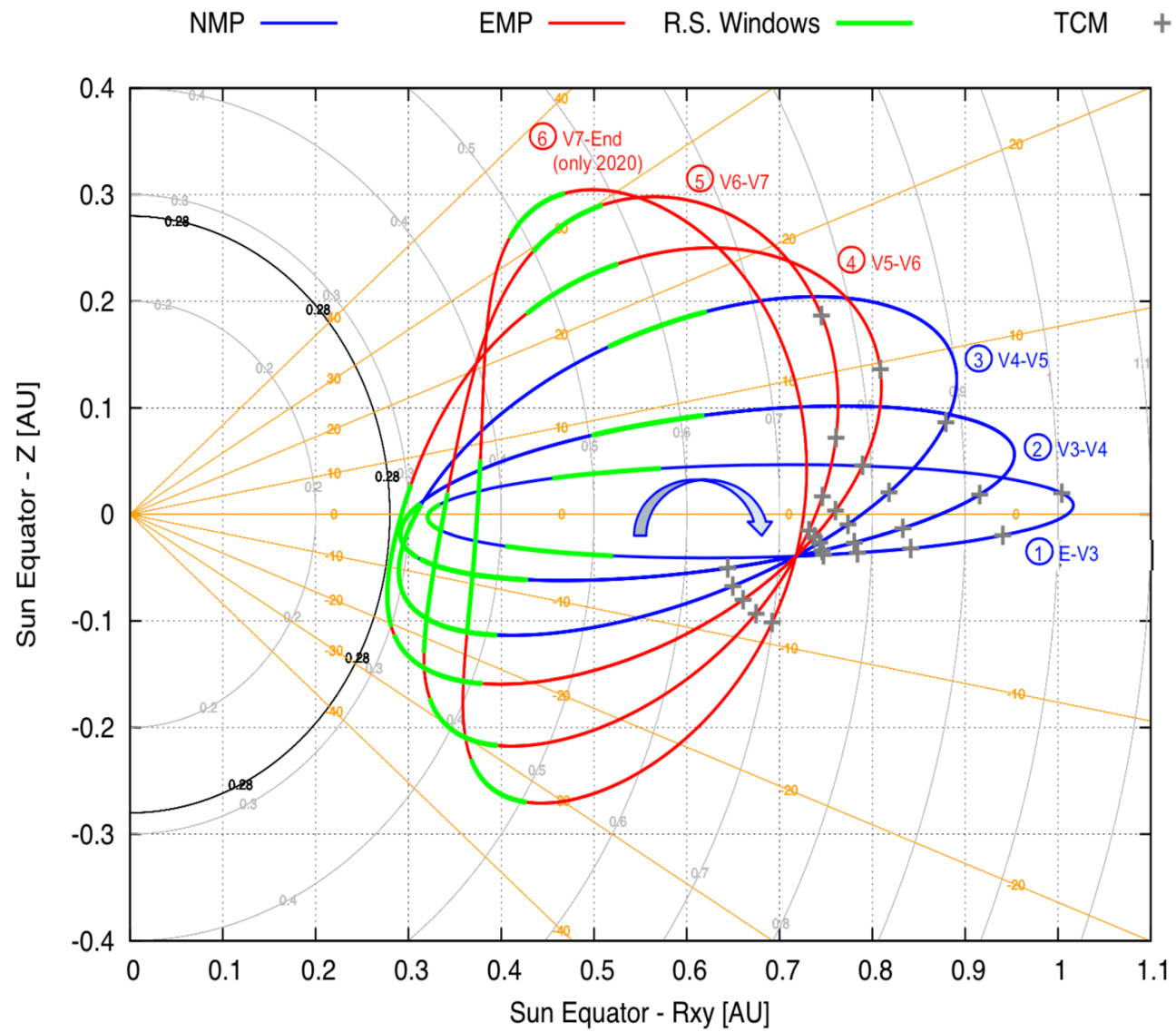


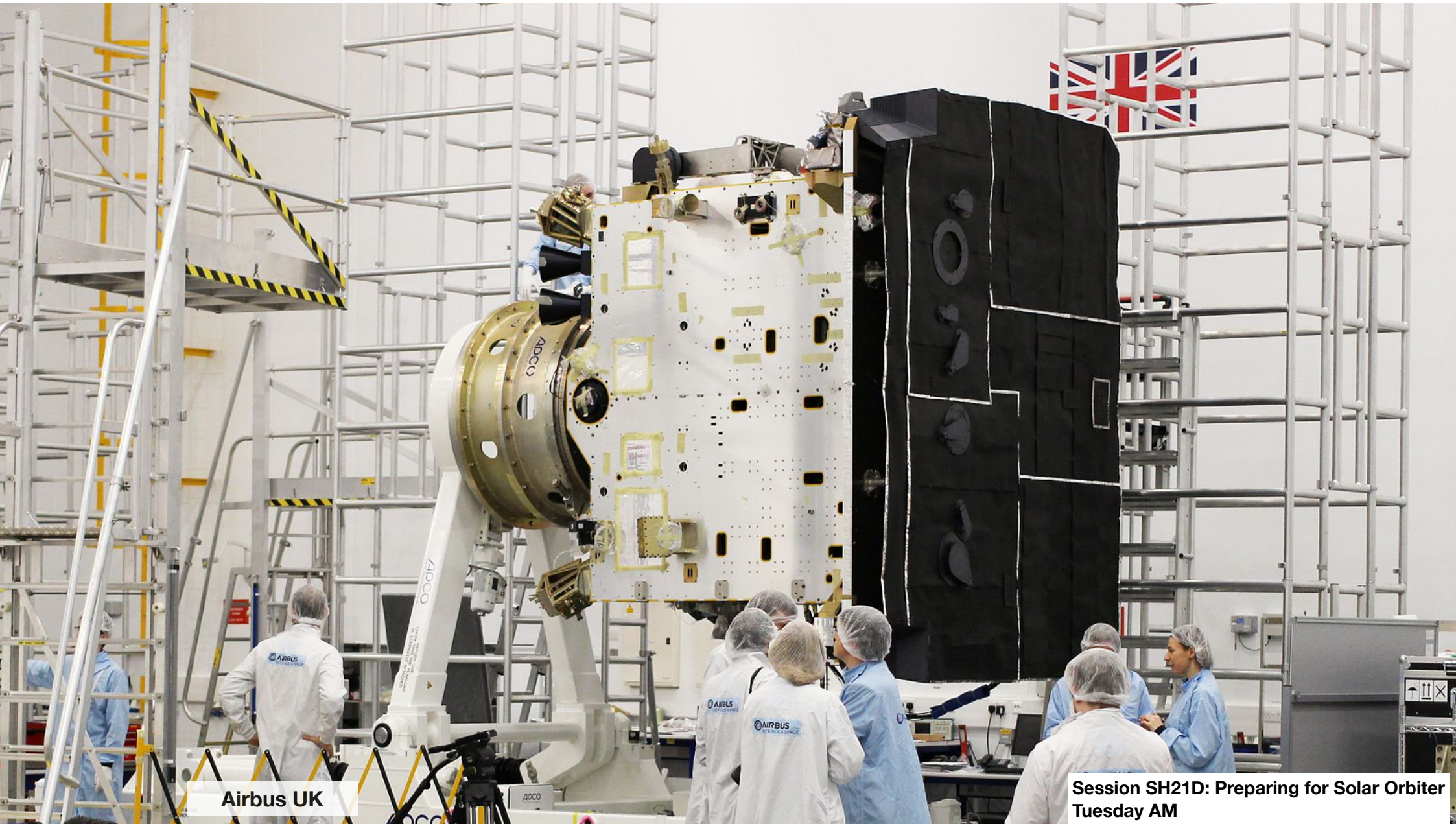


PROBA-3/ASPIICS

Andrei Zhukov: SH24A-10 Tue 17:49

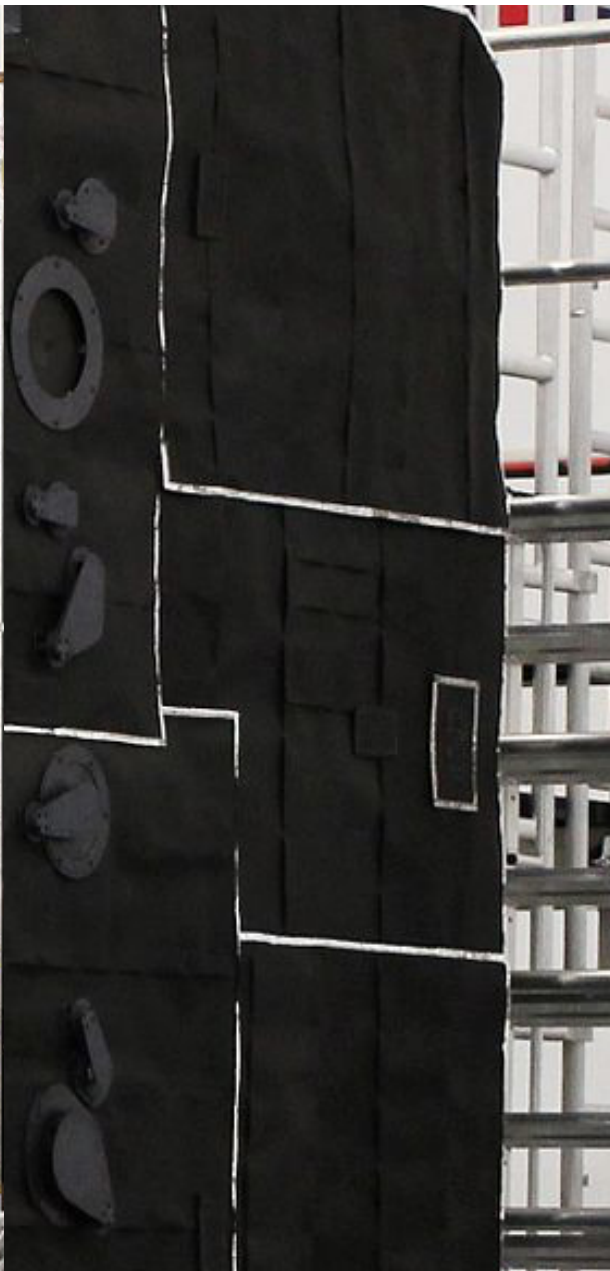
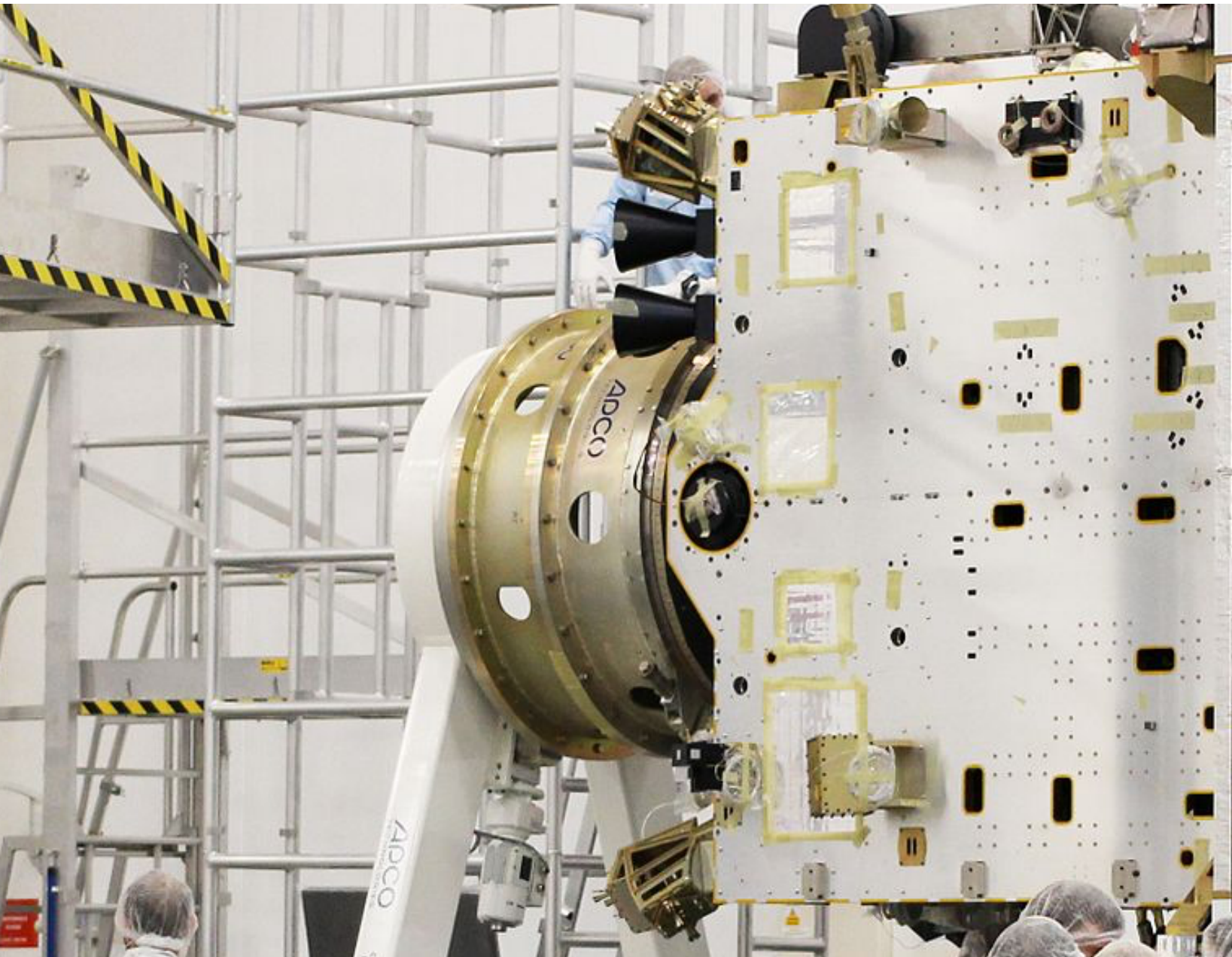
2019 Oct 19 @ IAGB (Munchen)

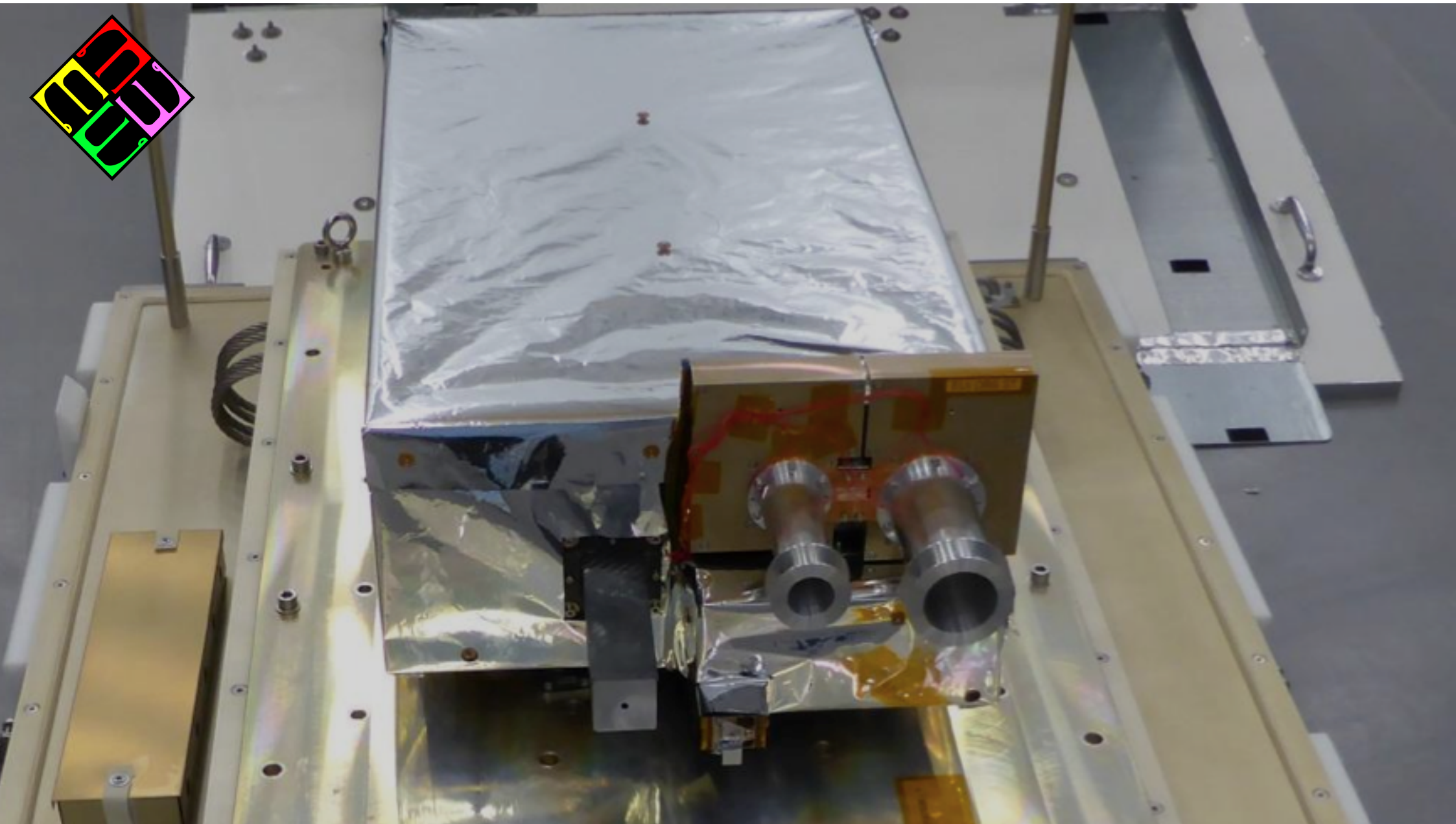




Airbus UK

Session SH21D: Preparing for Solar Orbiter
Tuesday AM

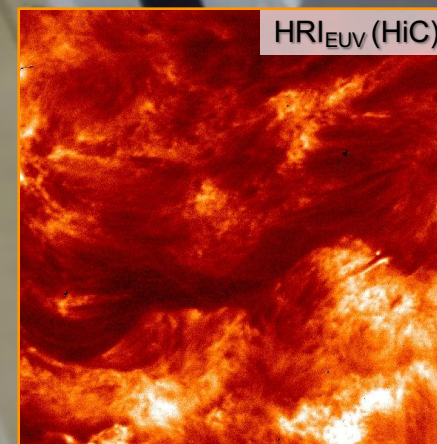
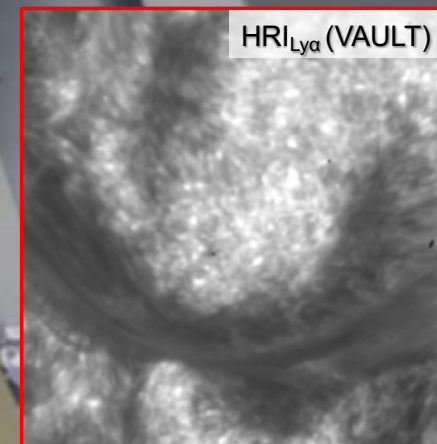






High Resolution Imagers

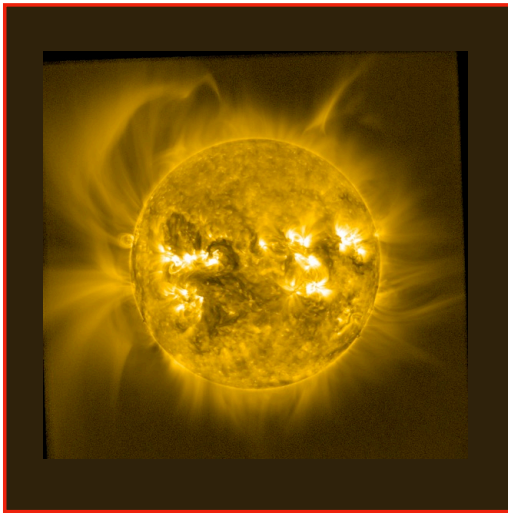
Full Sun
Imager
(17.4/30.4nm)



Poster Number: SH21D-3291
Tuesday, 10 December 2019; 08:00 - 12:20

Extremely Wide Field of View

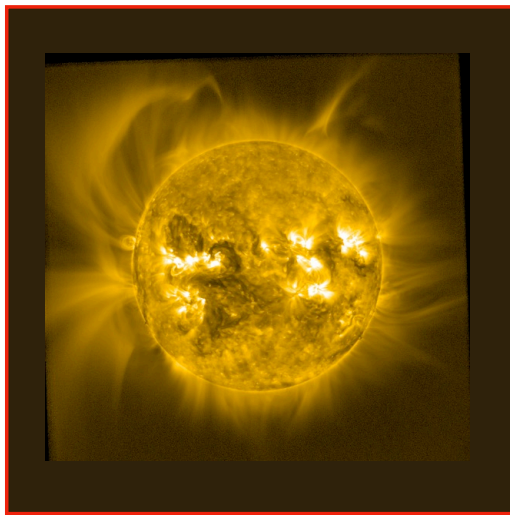
$3.8^\circ \times 3.8^\circ$ on 3k x 3k pixels, 4.5"/pix



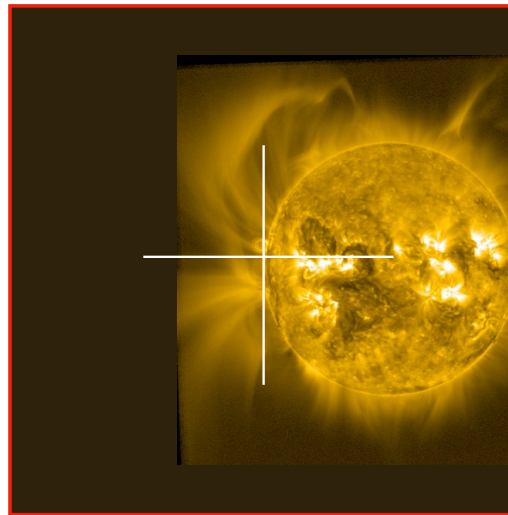
At 0.28 AU
 $4 R_{\text{sun}} \times 4 R_{\text{sun}}$

Extremely Wide Field of View

$3.8^\circ \times 3.8^\circ$ on 3k x 3k pixels, 4.5"/pix



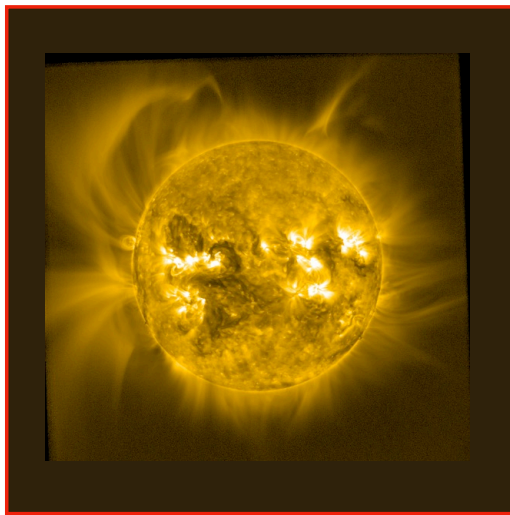
At 0.28 AU
 $4 R_{\text{sun}} \times 4 R_{\text{sun}}$



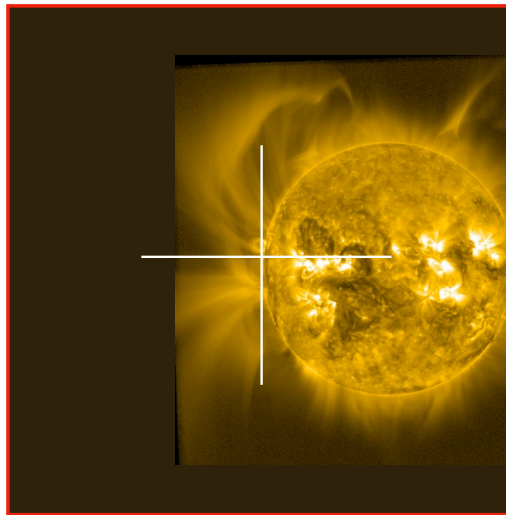
At 0.28 AU
still full disc and
 $2 R_{\text{sun}}$ above the limb

Extremely Wide Field of View

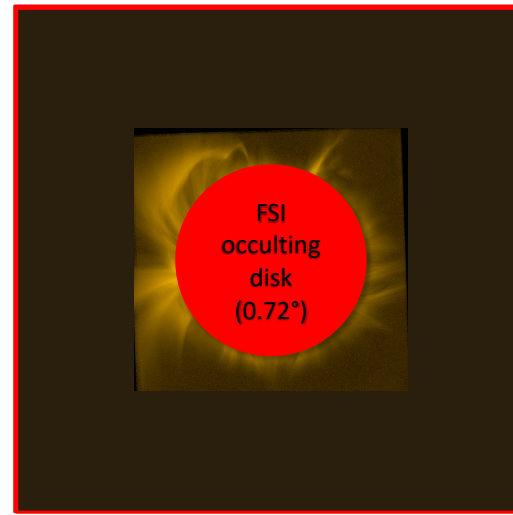
3.8° x 3.8° on 3k x 3k pixels, 4.5"/pix



At 0.28 AU
4 R_{sun} x 4 R_{sun}



At 0.28 AU
still full disc and
2 R_{sun} above the limb

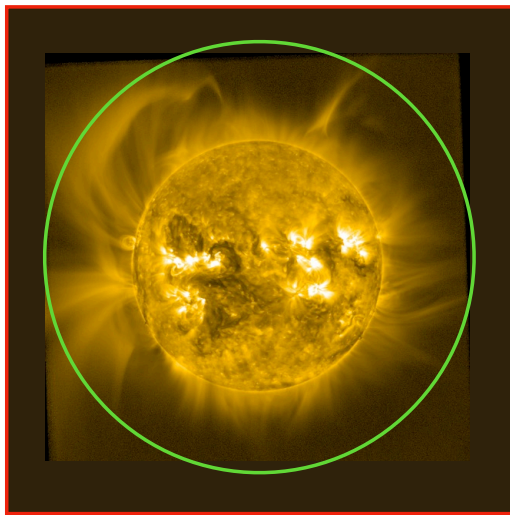


At 0.43 AU
6.14 R_{sun} x 6.14 R_{sun}

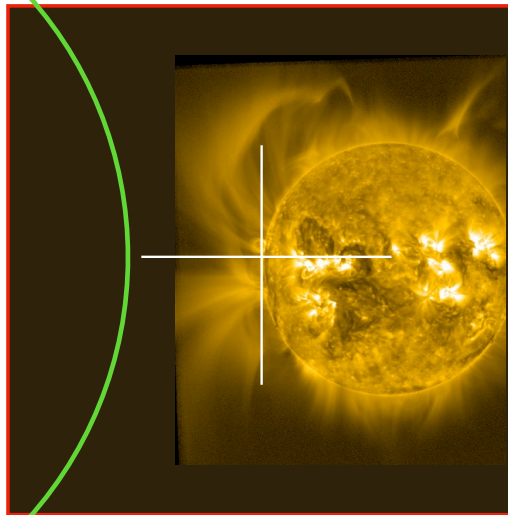
Extremely Wide Field of View

3.8° x 3.8° on 3k x 3k pixels, 4.5"/pix

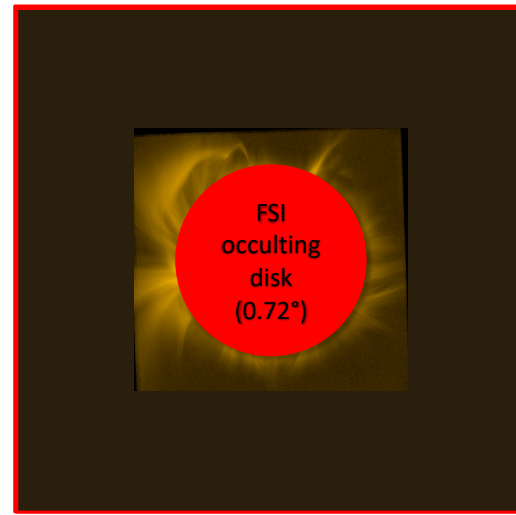
Metis



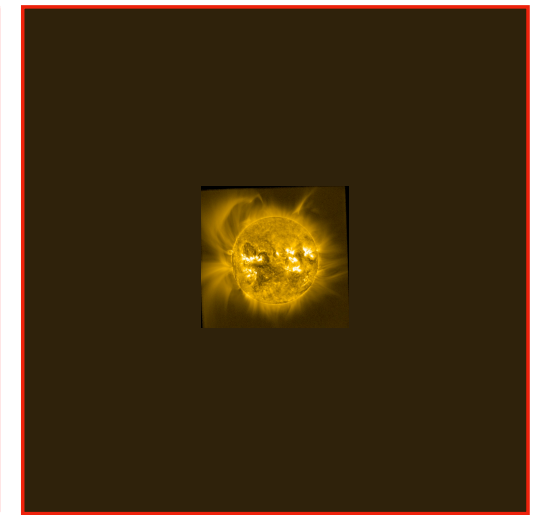
At 0.28 AU
4 R_{sun} x 4 R_{sun}



At 0.28 AU
still full disc and
2 R_{sun} above the limb

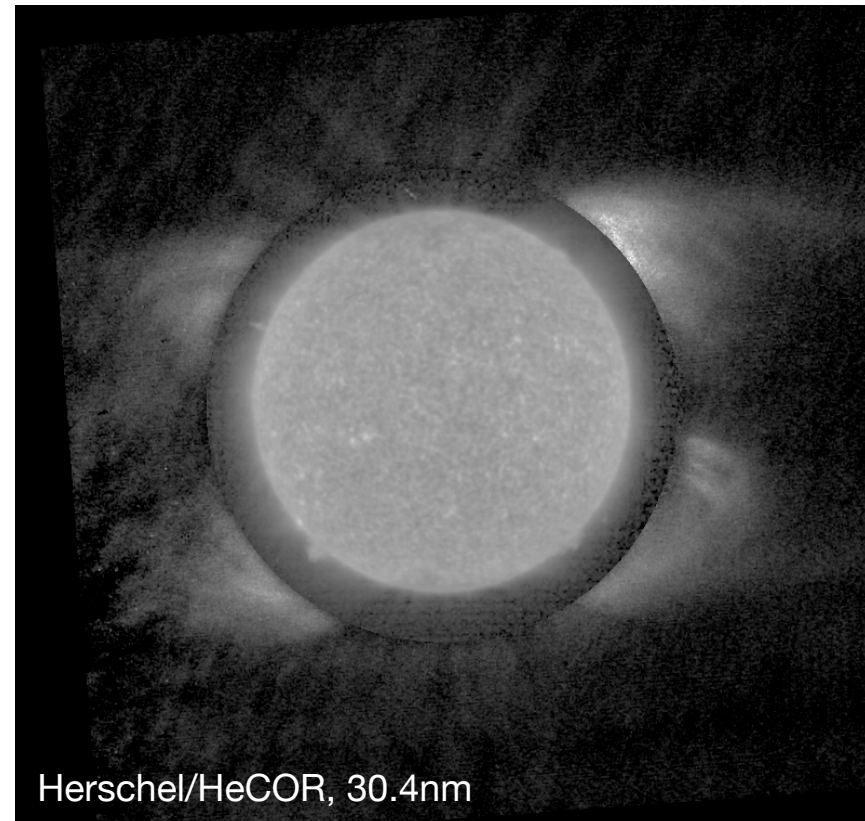
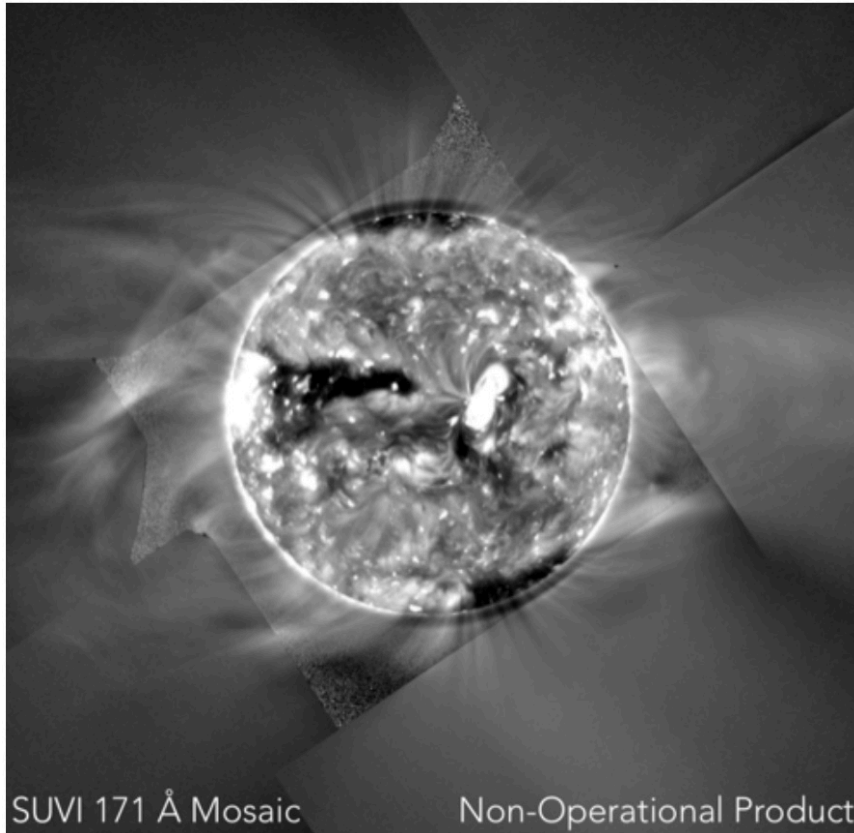


At 0.43 AU
6.14 R_{sun} x 6.14 R_{sun}

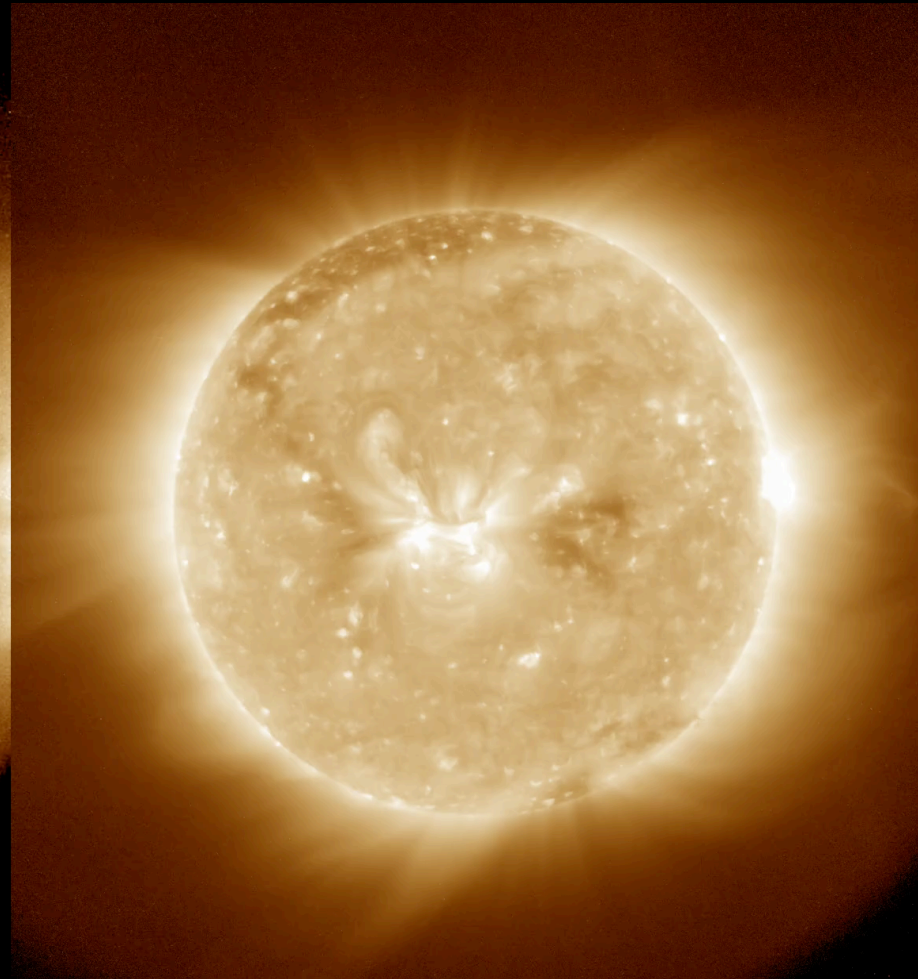


At 0.8 AU
11.4 R_{sun} x 11.4 R_{sun}

What will FSI show?



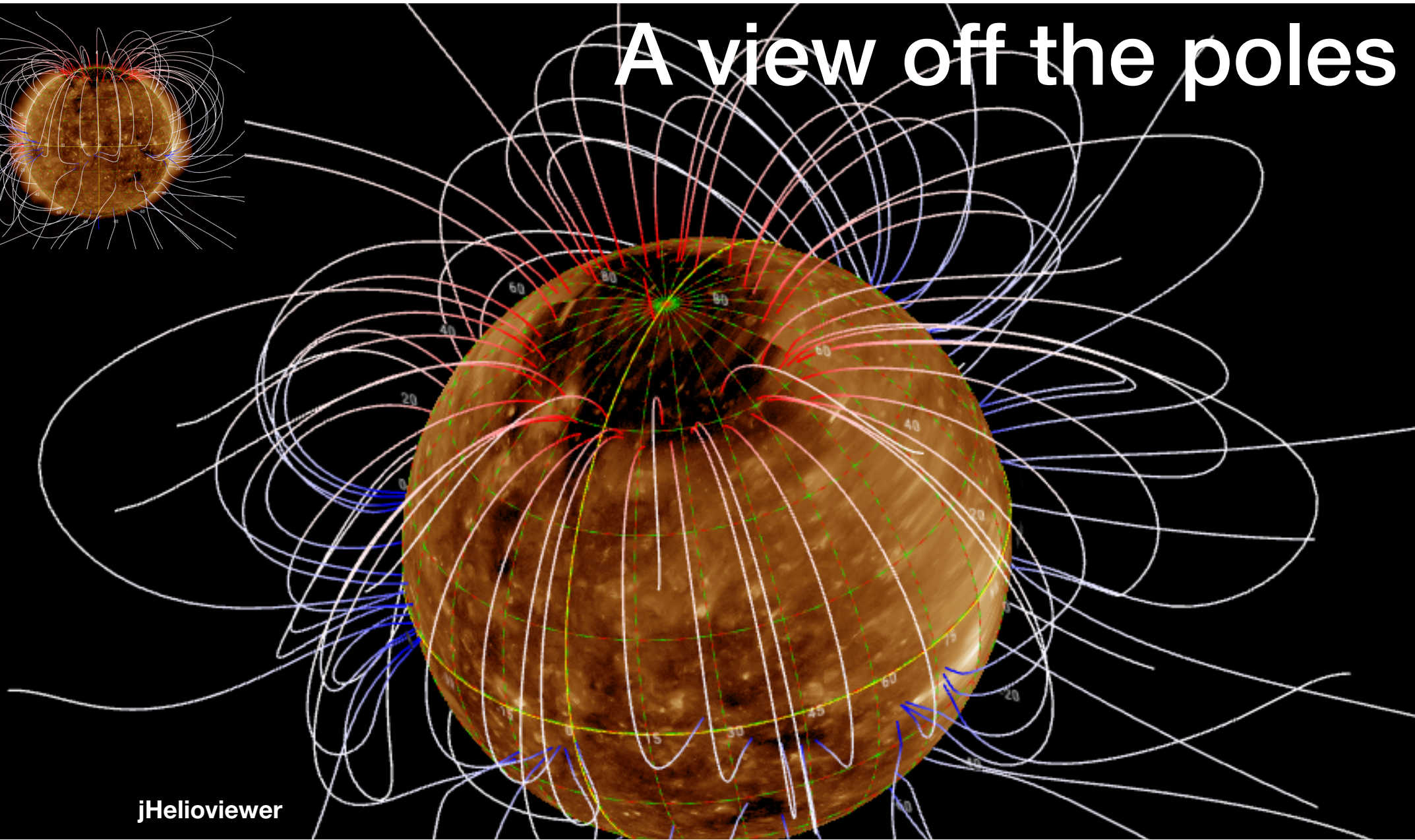
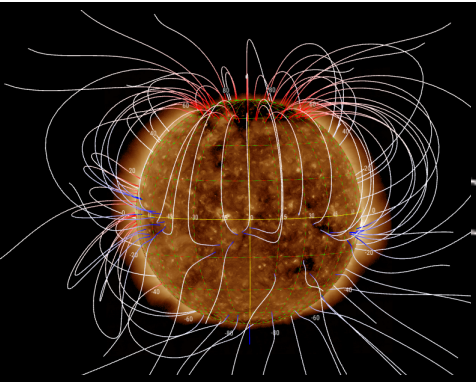
What will FSI show?



2018-08-10T00:23:39UTC GOES-17/SUVI 195A log10/ind, EXPTIME=20.0s/10.0s/20.0s, summing=2x2/1x1/2x2

GOES/SUVI team

A view off the poles



jHelioviewer

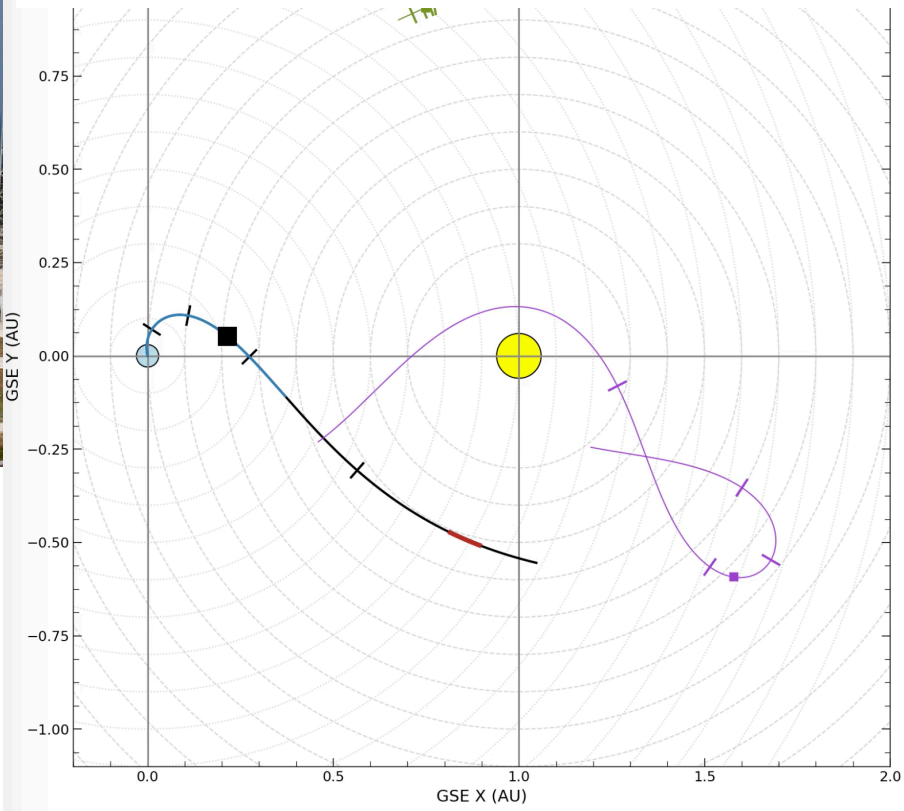
2020 Feb 6



2020 Feb 6



2020 April 21 first light at 0.8AU



2021-11-26 Nominal Mission Phase

Summary

- SWAP pioneered imaging of the far EUV corona
- the outer EUV corona is a challenging/interesting new domain
- Solar Orbiter/FSI will take this further
 - launch next February
 - orbit 30deg solar latitude, <0.3 AU
 - Full Sun Imager: large FOV in 17nm & 30.4nm for connection science with heliosphere