

Significance of Proba-2 in ESA SSA Programme

Juha-Pekka Luntama

Space Weather Office
ESA Space Safety Programme Office

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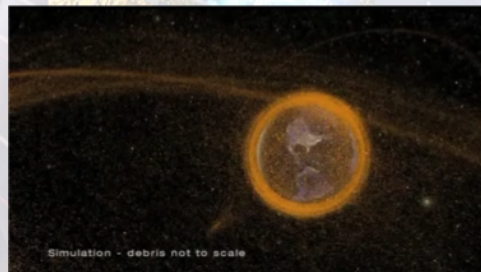
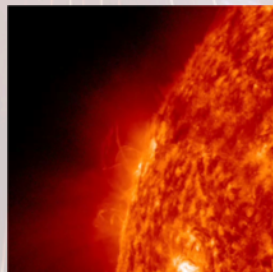


European Space Agency

Space Situational Awareness

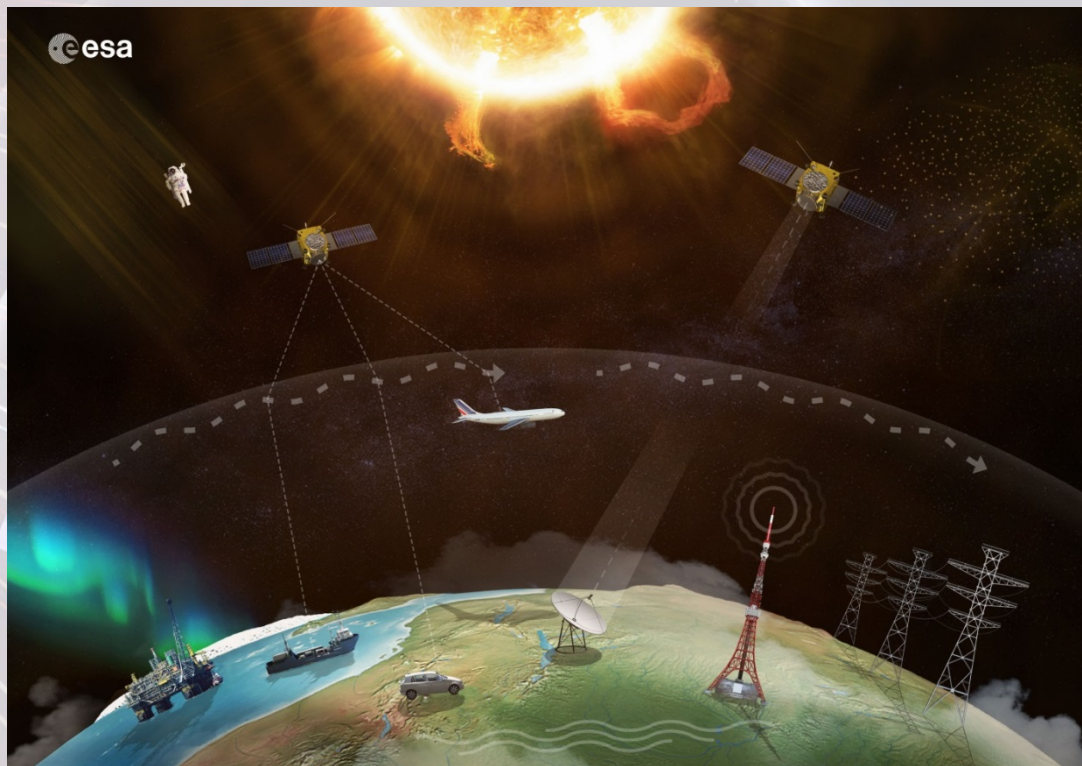
ESA Space Situational Awareness Programme (SSA)

is an initiative aiming to provide European autonomy in civil systems and services needed to protect satellites and the Earth



SSA Space Weather – Objectives

1. Support mitigation of the adverse impacts of SWE
2. Establish European capability for operational modelling and forecasting of space weather events and impacts
3. Ensure continued availability of SWE data for objectives 1 and 2



SSA SWE Network 2018



Data archives

- SSA SWE Data Centre (Redu)
- Federated data repositories

SSA SWE Coordination Centre

- User Helpdesk
- Space Pole, Belgium

SWE Expert Service Centres (ESCs)

Solar
Weather

Ionospheric
Weather

Space
Radiation

Geomagnetic
Conditions

Heliospheric
Weather

European expert groups and centres of excellence

Sensor systems



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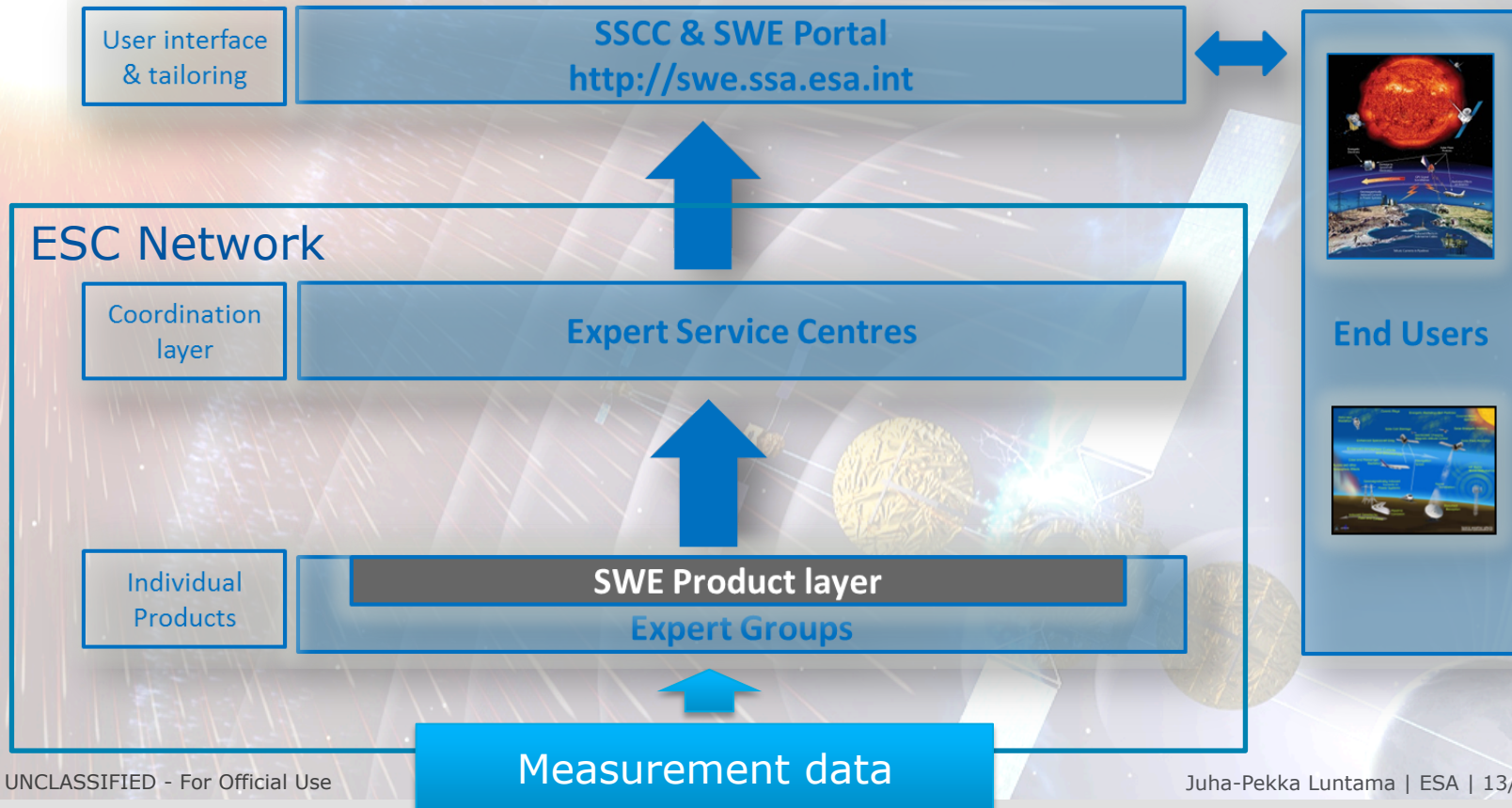
<http://swe.ssa.esa.int>

2018 | Slide 4



European Space Agency

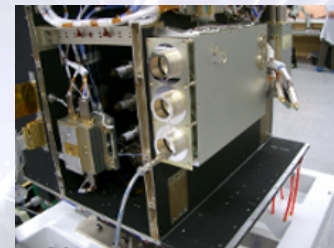
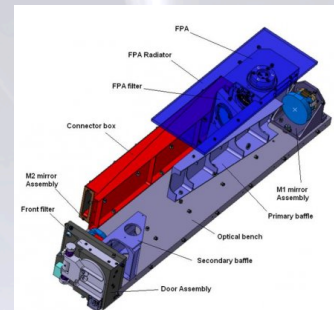
SWE Services Business Logic



PROBA2 in SSA Programme



- Mission Management handover from SCI (SRE) in 2013
- Overall funding shared between SCI and SSA
 - SCI funds P2SC
 - SSA covers MOC
- PROBA2 was the first mission managed by SSA Programme!
- SWAP and LYRA data used by Solar Weather Expert Service Centre
- MOC and P2SC funded until end 2019
- Further extension of mission & MOC by Space Safety Programme foreseen after next ESA Ministerial Council
- Continuation of P2SC funding is expected through PRODEX



SSA SWE Service Portal



space situational awareness

ESA SSA SWE NEO SST

About SWE

What is Space Weather
SSA Space Weather Activities
Current Space Weather
Contact

Service Domains

Spacecraft Design
Spacecraft Operation
Human Space Flight
Launch Operation
Transionospheric Radio Link
Space Surveillance and Tracking
Power Systems Operation
Airlines
Resource Exploitation System Operation
Pipeline Operation
Auroral Tourism Sector
General Data Service

Expert Service Centres

ESC Solar Weather
ESC Heliospheric Weather
ESC Space Radiation
ESC Ionospheric Weather
ESC Geomagnetic Conditions

Other Resources

Documents
SWWT
SWEN Newsletter
Upcoming Events

Sign-In

You are not signed in.
Sign In
Request for Registration

Welcome to the SSA Space Weather Service Network

Please note that all SSA-SWE Services are under review/construction

uxi: 68, Predicted Ap Index: 6 ---

Latest solar image with active regions

N04A All-sky
2018-11-13 06:30:00

N04A Halo-phi
No observation

N04A Rapid-phi
No observation

Cactus sunset group
2018-11-13 07:30:00

2018-11-13T13:20:23.760

Latest data from SWE network. For a full overview of current conditions follow the links to the Service pages.

Tweets by @esaspaceweather

ESA Space Weather
@esaspaceweather

Introducing SISTED warning for Near-Real Time detection of solar flares impacts on the ionosphere and GNSS signals! SISTED warning has been recently developed by @la_UPC and is now available on the ESA SWE portal. Find out more at: swe.ssa.esa.int/web/guest/upc-...

ALERTS.

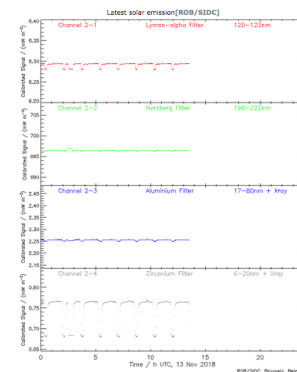
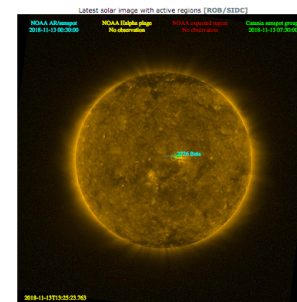
Solar Weather Expert Service Centre

The mission of the Solar Weather ESC is to provide and develop the functionalities, capabilities and expertise in the domain of Solar Weather that are needed within the ESA SSA SWE Network to achieve as a collaborative enterprise its mission of demonstrating and assessing the influences of Space Weather and informing and supporting end-users through the provision of accurate, reliable and timely products and (pre) operational services, tailored to their requirements.

The Solar Expert Service Centre (S-ESC) thus provides, implements and supports the Solar Weather products and capabilities of the ESA SWE network. This includes the observation, monitoring, interpretation, modelling and forecasting of Solar Weather conditions with an emphasis on Solar (sub)-surface and Solar coronal features, events and processes that drive Space Weather in our Solar system.

This page provides access to the latest data, products and analysis tools from the SSA SWE Solar Weather Expert Service Centre.

Latest data



ESC tools and products

ROB/SIDC

- PROBA2 / SWAP - EUV 17.4 nm
- PROBA2 / LYRA
- USET / H-alpha full disk
- USET / White-Light
- HUMAIN / Radiospectrogram
- SDO / AIA
- International Sunspot Index
- F10.7 index forecast
- Daily SWE bulletin
- CACTUS Automated CME detection
- Automated alerts (GOES-flare, CACTUS-CME)
- SIDC all quiet alert
- HUMAIN / Automated Radio burst detection
- F10.7 forecast
- Solar flare forecast
- Operator moderated alerting service
- USET / Sunspot group characteristics

UGraz/KSO

- Kanzelhöhe / H-alpha full disk movie
- flare detection and alerts
- Kanzelhöhe / White light

A-EFFort

- 24hr forecast of major solar flares

INAF/OACT

- White light Solar images
- H-alpha Solar images
- Sunspot Group Characteristics

eCallisto

- Radiospectrograms

ESC alerts

ROB/SIDC

- All quiet alert
- Solar GOES-flare alert
- Human operator alert moderation
- Cactus automated Halo CME alert

UGraz/KSO

- UGraz/KSO Solar flare alerts

General applications

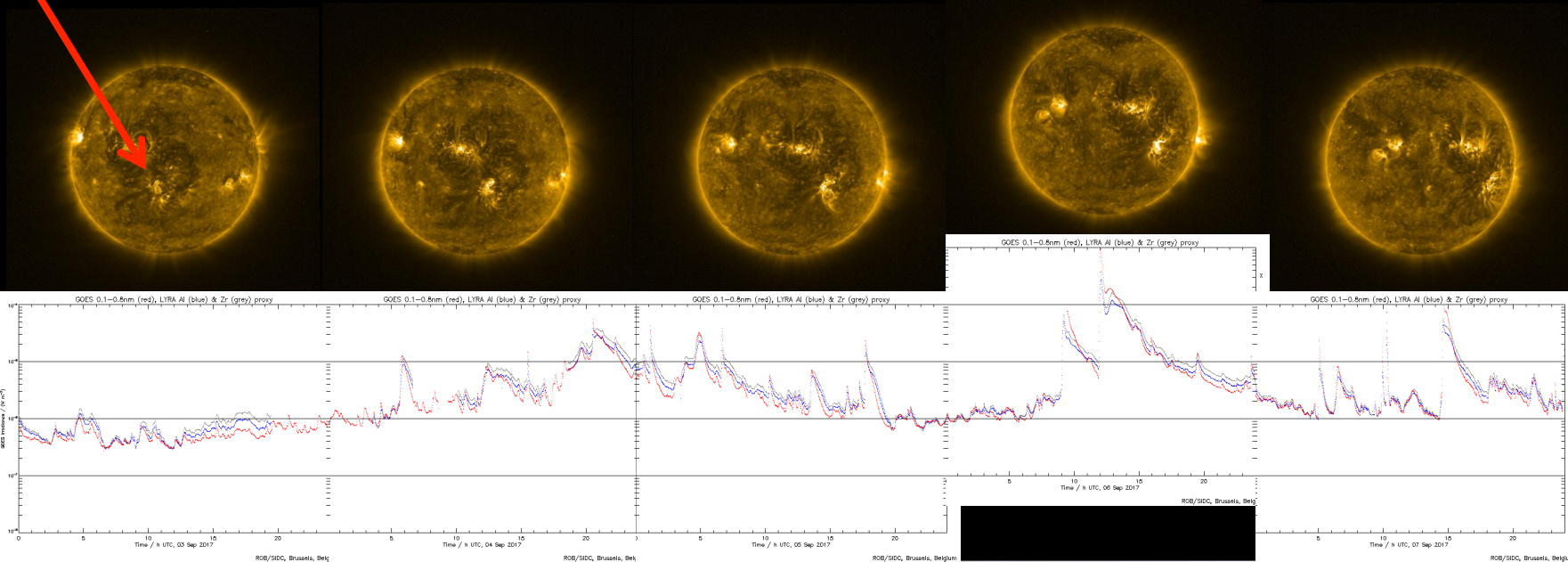
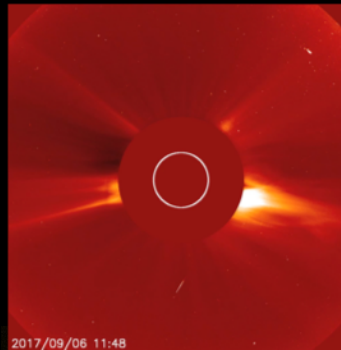
SWE Data

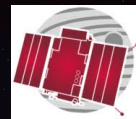
- SWE Data Browsing and Analysis

ESC Coordinator
Jesse Andries (ROB)

Space Weather

3 – 7 Sept 2017





swe.ssa.esa.int
www.esa.int

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[#SpaceWeather](https://twitter.com/SpaceWeather)
[#SolarHazards](https://twitter.com/SolarHazards)
[#SafeguardingOurPlanet](https://twitter.com/SafeguardingOurPlanet)

