

CM SAF data in support to land surface analysis and drought monitoring

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SARAH-3 CDR and ICDR

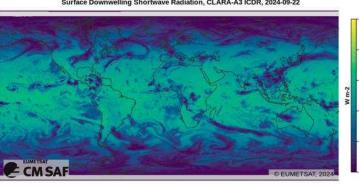
SARAH-3: Surface Solar Radiation Data Set - Heliosat

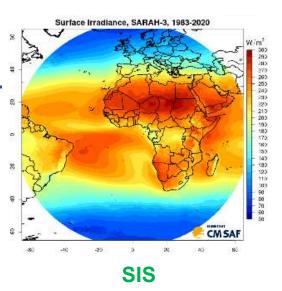
- Surface incoming solar radiation (SIS), photosynthetically active radiation (PAR)
- ...and more using MVIRI and SEVIRI data
- CDR: 1983-2020 (12 different prime satellites).
- ICDR: January 2021 onwards, all parameters (2 different prime satellites)
- Resolution: 0.05°, instantaneous, daily, monthly, daily sums, monthly (SDU)
- DOI: 10.5676/EUM SAF CM/SARAH/V003

Pfeifroth et al., 2024, ESSD

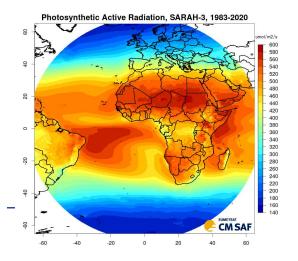
SIS also available from CLARA-A3

- DOI: 10.5676/EUM_SAF_CM/CLARA_AVHRR/V003
 Surface Downwelling Shortwave Radiation,
- Global, 0.25°, daily, monthly
- CDR+ICDR
- Karlsson et al., 2024, ESSD





PAR



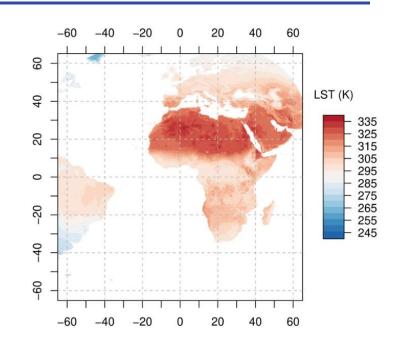


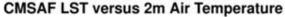


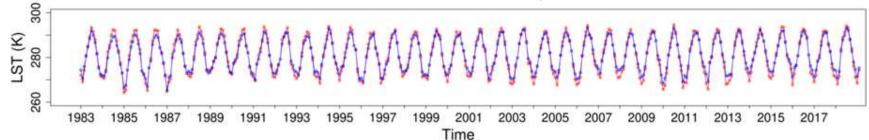
LandFlux CDR

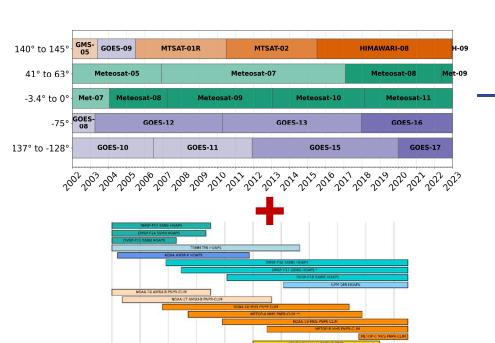


- Based on Meteosat First and Second Generation
- LandFlux features:
 - → Land surface temperature, latent and sensible heat flux, and more
 - **→** 1983-2020
 - → 0.05°
 - → Hourly, daily, monthly and monthly mean diurnal cycle
 - → DOI: 10.5676/EUM_SAF_CM/LST_METEOSAT/V002 10.5676/EUM_SAF_CM/SLF_METEOSAT/V001







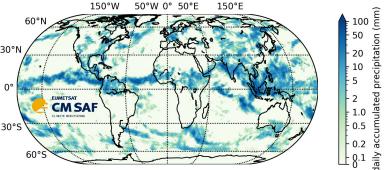


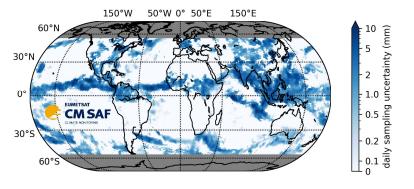
GIRAFE: Global precipitation



Merging of microwave imager and sounder data with georing IR data: high accuracy (microwave) and high temporal sampling (IR)

13th July 2021







- → 1° x 1° x 1 day accumulated precipitation and monthly averages
- Uncertainty for daily data
- No adjustment towards rain gauge datasets in v1
- Extension with ICDR version in development (release in Q2 2025)
- → Doi: 10.5676/EUM SAF CM/GIRAFE/V001

