




cloud
cci



Deutscher Wetterdienst
Wetter und Klima aus einer Hand



 Schweizerische Eidgenossenschaft
Confédération suisse
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Swiss Confederation

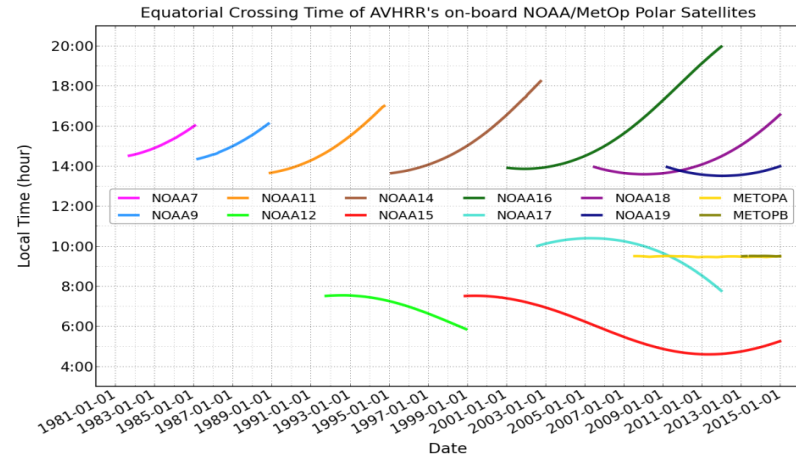
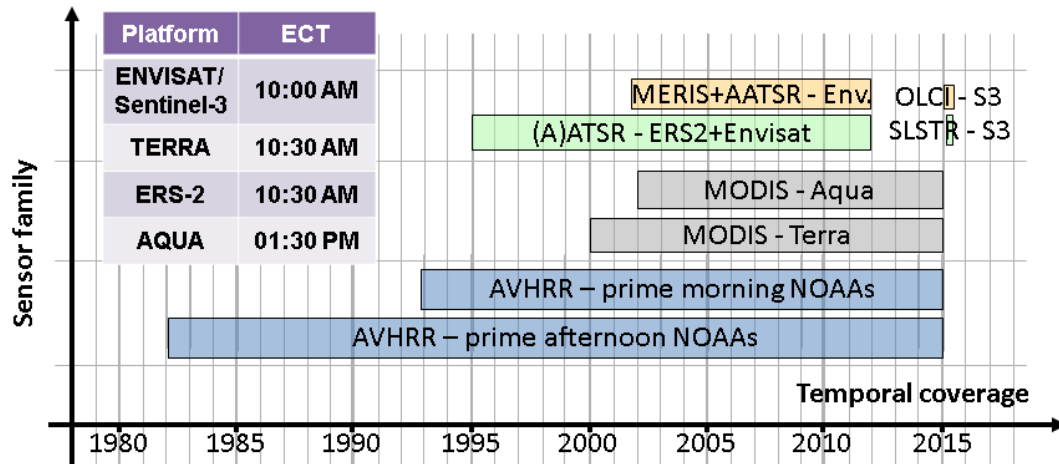
Federal Department of Home Affairs FDHA
Federal Office of Meteorology and Climatology
MeteoSwiss

What's

ESA Cloud_cci TCDR



- **Multi-decadal coherent global data records for GCOS cloud property ECVs including uncertainty estimates based on inter-calibrated radiances from:**
 - **AVHRR, MODIS, AATSR observations (CC4CL): 30+ yr**
 - **Combined AATSR+MERIS measurements (FAME-C) : 10 yr**



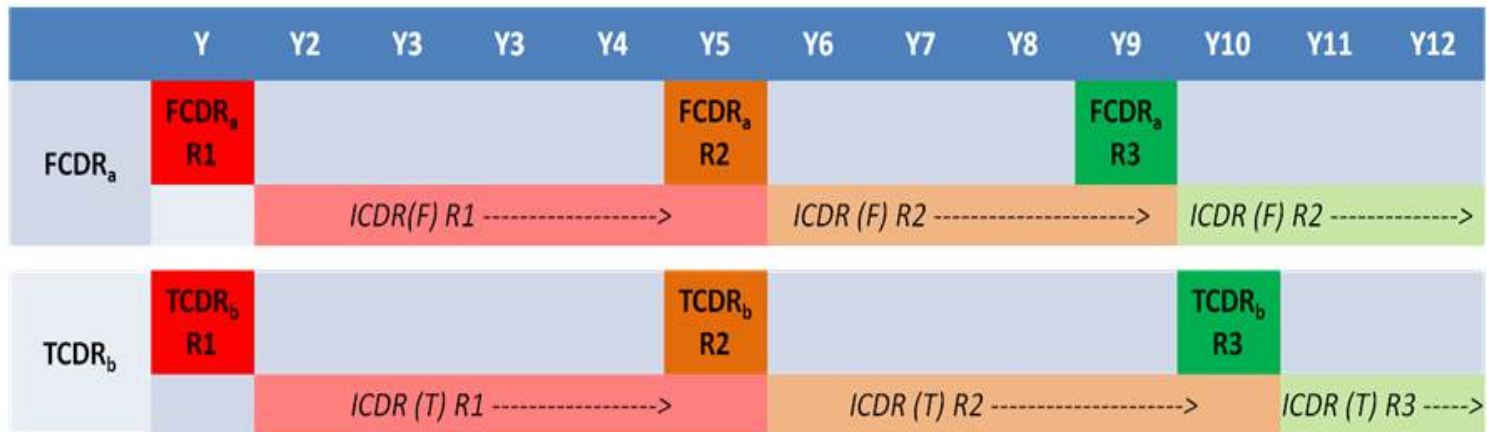
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Operational climate monitoring



As for other ECV's, for Cloud properties is a demand for providing regular CDR updates fulfilling the concept of operational climate monitoring

Concept of operational climate monitoring



R. Roebeling, modified

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What is operational?



Cloud properties from “heritage sensors / channels” AVHRR, MODIS, AATSR observations (CC4CL):

Processing not finished, but the current results along with the achieved additional improvements demonstrate their improved quality.

Maturity acc. to SMM in the order of 3-4 expected by end of project

-> can be considered as ready for operational

Context for operational environment:

EUMETSAT CM SAF CDOP-3 (2017-2022) planning:

WP on future TCDR releases of cloud properties (>2022), CM SAF will assess and consider the Cloud_cci achievements

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What needs further R&D?



Cloud properties from “heritage sensors / channels” AVHRR, MODIS, AATSR observations (CC4CL):

Adaptation to future sensors (e.g. SLSTR)

Cloud properties from combined AATSR+MERIS measurements (FAME-C)

O2A retrieval

Adaptation and transfer to future sensors (e.g. SLSTR, OLCI)

further reprocessing in CDR generation framework is necessary

Both: for the earlier satellite measurements the decadal stability will remain a major issue which only can be solved with a **high quality FCDR of AVHRR radiances, inter-calibrated with MODIS, (A)ATSR, SLSTR et al.**