

MEOS™ Polar



KONGSBERG

MEOS™ Polar Ground Station

MEOS™ Polar Ground Station is a complete turnkey system for acquisition, processing, and distribution of Meteorological data from Direct Broadcast EOS satellites.

MEOS™ Polar is a multi-mission, flexible and modular turnkey system for acquisition, archiving, processing, analysis and distribution of meteorological data, with a confirmed availability of more than 99.9%.

MEOS™ Polar supports direct broadcast reception in L- and X-band for the following satellite missions: **METOP-B/C, Suomi-NPP, NOAA-20/21, METOP-SG A/B, FY-3D/E/F, AWS-PFM, EPS-Sterna, and AQUA**. Other missions may be supported upon request. Any combination of these missions may be supported, depending on the customer's requirements.

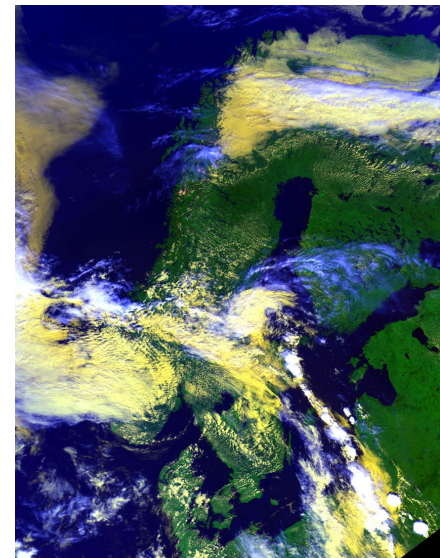
The Basic Package ingests data from an antenna and provides all the necessary tools for basic processing and operation of the ground station. Data are pre-processed and stored into a mission specific formats or as Level 0, Level 1 and map-projected areas in GeoTIFF format. All data is stored in local archives.

Raw data files, products, reports may be distributed over LAN / WAN to other users. All operations are automatic and easily configurable.

The system has advanced capabilities for monitoring of the system. All status information is stored in local DB. This gives a unique capability to do diagnostics locally as well as remotely, and to generate reception quality reports.

Missions	Sensors	Downlink
METOP B/C	AVHRR, ATOVS, AMSU-A, HIRS, MHS, IASI	AHRPT
S-NPP	CrIS, ATMS, VIIRS, OMPS	HRD
NOAA-20/21	CrIS, ATMS, VIIRS, OMPS	HRD
METOP-SG A/B		DDB
FY-3	MERSI	MPT
AWS-PFM EPS-Sterna (from 2029)	MWR	Direct Broadcast
AQUA	MODIS, AIRS, AMSU-A, HSB	LR

Currently supported missions



FEATURES

- Complete EOS DB ground station
- Flexible, modular and scalable
- Easily upgradable
- Linux-based (SLES)
- Multi-mission support
- Production oriented
- Support for automatic and manual scheduling, acquisition, processing, and distribution
- Local and remote control, using web-based GUIs
- Open data access at all processing levels
- Post-pass reports
- Extensive training, maintenance and support program

Basic Package

- Ingest of raw data to disk and pre-processing
- Local and remote operation control
- Web-based Graphical User Interface for monitoring and control
- Advanced logging, display of status and events in real time
- Generation of browse image files
- Archiving of raw data, higher level products, and reports
- Advanced distribution
 - All file types: (S)FTP(S), TCP, UDT, NFS
 - VCDUs only: SLE RCF/RAF
 - Additional features:
 - EARS segmentation
 - Dynamic filenames for (S)FTP(S) transfers
 - VCID filtering for VCDU files
 - APID filtering for ISP files
- Multiple scheduling options:
 - Automatic, rule-based scheduling
 - MEOS programmatic schedule interface
 - MEOS XML schedule format
 - EARS XML schedule format
 - CCSDS Simple Schedule Format
- Automatic higher-level processing, up to Level 1b:
 - MetOp-B/C, using AAPP
 - Suomi-NPP, NOAA-20/21, using CSPP SDR
 - FY-3D/E, using CMA package
 - Aqua, using SeaDAS
- Automatic generation of customer defined map-projected products in GeoTIFF and PNG format, using CSPP Polar2Grid.
- Typical processing performance from the end of reception (loss of signal) to finished level 1 products:
 - MetOp-B/C: less than 1 minute
 - Suomi-NPP and NOAA-20/21 VIIRS: 10-20 minutes.
 - FY-3D/E: 8-10 minutes
 - AQUA: less than 5 minutes

Optional MEOS™ Antenna

The MEOS™ Antenna provides functionality to track satellites, receive and deliver the radio signal to the MEOS™ Polar system.

MEOS™ Antenna system includes:

- X/Y Positioner
- 3.7m Reflector
- X-/L-band Feed, with RHCP/LHCP switchable polarity
- In-door unit, with dehydrator

