MOSAIC (Drifting Obs - Study of Arctic Climate); AMF2
Atmospheric Radiation Measurement User Facility

All-in-one meteorology sensor, intended solely for the purpose of analyzing the data from the AOS instruments
ARM Name: AOSMET
Datastream: mosaosmetM1.a1

AOS: Dual Column Cloud Condensation Nuclei Counter
ARM Name: CCN
Datastream: mosaosccn200M1.a1

AOS: Carbon Monoxide Analyzer
ARM Name: CO-ANALYZER
Datastream: mosaoscoM1.a1

AOS: Fine Condensation Particle Counter
ARM Name: CPC
Datastream: mosaoscpcfM1.a1

AOS: Ultrafine Condensation Particle Counter
ARM Name: CPCUF
Datastream: mosaoscpcufM1.a1

AOS Humidified Tandem Differential Mobility Analyzer
ARM Name: HTDMA
Datastream: mosaoshtdmaM1.a1

AOS impactor state corrected with nephelometer pressure
ARM Name: AOS
Datastream: mosaosimpactorM1.a1

AOS: ambient nephelometer measurements, with calibrations applied at b1-level and above
ARM Name: NEPHELOMETER
Datastream: mosaosnephdryM1.a1

AOS: Ozone (O3) Monitor
ARM Name: OZONE
Datastream: mosaoso3M1.a1

mosaospsap3w1mM1.a1
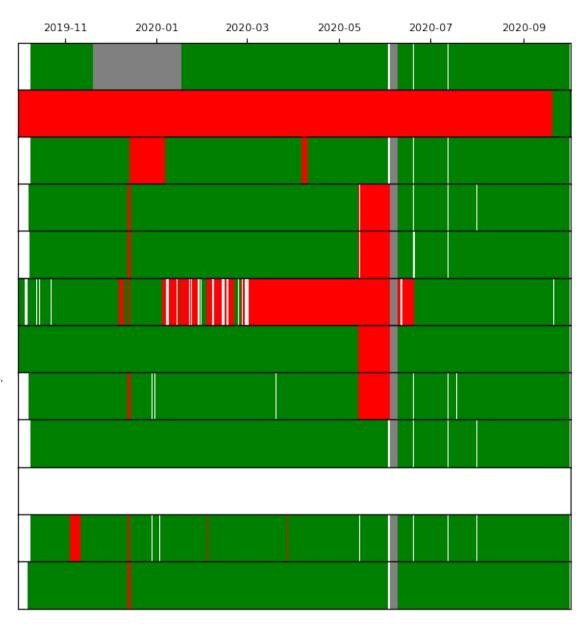ARM Name: PSAP
Datastream: mosaospsap3w1mM1.a1

AOS: Scanning-Mobility Particle Sizer
ARM Name: SMPS
Datastream: mosaossmpsM1.a1

AOS: Ultrahigh Sensitivity Aerosol Spectrometer
ARM Name: UHSAS
Datastream: mosaosuhsasM1.a1

ARM Data Quality Report (DQR) Table

Datastream	DQR	Quality	Subject	Start Date	End Date
mosaosmetM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaosmetM1.a1	D200227.6	missing	Intermittent Missing Wind Data	20191119.112000	20200117.132200
mosaosccn200M1.a1	D211021.3	incorrect	MOS AOS Datastreams missing AOS Purge Data	20200514.000000	20200604.000000
mosaosccn200M1.a1	D211021.2	incorrect	MOS AOS Datastreams missing AOS Impactor data	20200514.000000	20200604.000000
mosaosccn200M1.a1	D210310.5	incorrect	DOI incorrect	20190927.000000	20200920.000000
mosaosccn200M1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaosccn200M1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaoscoM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaoscoM1.a1	D200724.1	incorrect	Period of Disruption - Operator Worked with Mentor	20200406.000500	20200409.185500
mosaoscoM1.a1	D200102.7	incorrect	Possible Pump Failure	20191224.223000	20190106.140500
mosaoscoM1.a1	D200415.3	incorrect	Internal Pump Died	20191214.040000	20200106.141500
mosaoscpcfM1.a1	D211021.3	incorrect	MOS AOS Datastreams missing AOS Purge Data	20200514.000000	20200604.000000
mosaoscpcfM1.a1	D211021.2	incorrect	MOS AOS Datastreams missing AOS Impactor data	20200514.000000	20200604.000000
mosaoscpcfM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaoscpcfM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaoscpcufM1.a1	D211021.3	incorrect	MOS AOS Datastreams missing AOS Purge Data	20200514.000000	20200604.000000
mosaoscpcufM1.a1	D211021.2	incorrect	MOS AOS Datastreams missing AOS Impactor data	20200514.000000	20200604.000000
mosaoscpcufM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaoscpcufM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaoshtdmaM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaoshtdmaM1.a1	D200710.4	incorrect	Flow Issues from Flooding	20200226.000000	20200620.000000
mosaoshtdmaM1.a1	D200116.1	incorrect	Internal Flow Issues	20200106.100000	20200116.100000
mosaoshtdmaM1.a1	D191217.1	incorrect	Flow Issues	20191207.000000	20191210.000000
mosaoshtdmaM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaosimpactorM1.a1	D211021.3	incorrect	MOS AOS Datastreams missing AOS Purge Data	20200514.000000	20200604.000000
mosaosimpactorM1.a1	D211021.2	incorrect	MOS AOS Datastreams missing AOS Impactor data	20200514.000000	20200604.000000
mosaosimpactorM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaosnephdryM1.a1	D211021.3	incorrect	MOS AOS Datastreams missing AOS Purge Data	20200514.000000	20200604.000000
mosaosnephdryM1.a1	D211021.2	incorrect	MOS AOS Datastreams missing AOS Impactor data	20200514.000000	20200604.000000
mosaosnephdryM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000

ARM Data Quality Report (DQR) Table

Datastream	DQR	Quality	Subject	Start Date	End Date
mosaosnephdryM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaoso3M1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaossmpsM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaossmpsM1.a1	D201120.2	incorrect	Data Affected	20200327.132514	20200328.073014
mosaossmpsM1.a1	D201118.4	incorrect	Data Affected	20200203.151514	20200204.065514
mosaossmpsM1.a1	D191114.1	incorrect	Clogged Impactor on SMPS	20191104.053000	20191111.040000
mosaossmpsM1.a1	D200211.1	incorrect	SMPS Impactor Clogged.	20200203.150000	20200204.070000
mosaossmpsM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700
mosaosuhsasM1.a1	D210817.1	missing	Polarstern in Norwegian Territorial Waters	20200603.203600	20200608.200000
mosaosuhsasM1.a1	D200415.4	incorrect	Inlet Sampling HEPA Filtered Air	20191212.110500	20191214.044700

ARM Data Object Identifier (DOI) Table

Instrument	DOI
AOSMET	Kyrouac, J., & Springston, S. Meteorological Measurements associated with the Aerosol Observing System (AOSMET). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1025153
CCN	Koontz, A., & Senum, G. Cloud Condensation Nuclei Particle Counter (AOSCCN200). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1223287
CO-ANALYZER	Trojanowski, R., & Springston, S. Carbon Monoxide Analyzer (AOSCO). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1046183
CPC	Kuang, C., Salwen, C., Boyer, M., & Singh, A. Condensation Particle Counter (AOSCPCF). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1046184
CPCUF	N/A
HTDMA	Uin, J., & Cromwel, E. Humidified Tandem Differential Mobility Analyzer (AOSHTDMA). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1095581
AOS	Mayol-Bracero, O., Springston, S., & Smith, S. Aerosol Observing System (AOSIMPACTOR). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1256094
NEPHELOMETER	Koontz, A., & Uin, J. Nephelometer (AOSNEPHDRY). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1258791
OZONE	Trojanowski, R., & Springston, S. Ozone Monitor (AOSO3). Atmospheric Radiation Measurement (ARM) User Facility.
PSAP	Koontz, A., & Springston, S. Particle Soot Absorption Photometer (AOSPSAP3W). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1333829
SMPS	Kuang, C., Singh, A., & Howie, J. Scanning mobility particle sizer (AOSSMPS). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1225453
UHSAS	Koontz, A., & Uin, J. Ultra-High Sensitivity Aerosol Spectrometer (AOSUHSAS). Atmospheric Radiation Measurement (ARM) User Facility. https://doi.org/10.5439/1333828