

Atmospheric Gases

BrO	Bromine oxide
CFC	Chlorofluorocarbon
CFC11	Trichlorofluoromethane
CHOCHO	Glyoxal
CH ₄	Methane
CH ₃ Cl	Chloromethane
CH ₃ CN	Acetonitrile
C ₂ H ₆	Ethane
ClO	Chlorine monoxide
ClONO ₂	Chlorine nitrate
CO	Carbon monoxide
CO ₂	Carbon dioxide
HCHO	Formaldehyde
HCl	Hydrogen chloride
HCN	Hydrogen cyanide
HDO	Deuterium protium oxide (heavy water)
HF	Hydrofluor
HFC	Hydrofluorocarbon
HNO ₃	Nitric acid
H ₂ O	Water vapour
IO	Iodine oxide
NAT	Nitric acid trihydrate
NO	Nitric oxide
NO ₂	Nitrogen dioxide
NO ₃	Nitrate radical
N ₂ O	Nitrous oxide
N ₂ O ₅	Dinitrogen pentoxide
OCIO	Chlorine dioxide
OH	Hydroxyl radical
O ₃	Ozone
O ₂	Oxygen (molecular)
O ₂ (¹ Δ)	Oxygen (singlet delta)
O ₄	Oxygen (dimer)
PAN	Peroxyacetyl nitrate
SO ₂	Sulphur dioxide

Abbreviations and Acronyms

AAI	Absorbing Aerosol Index
AATSR	Advanced ATSR
ACE	Atmosphere Climate Experiment
ACVE	Atmospheric Chemistry Validation of ENVISAT
ACVT	Atmospheric Chemistry Validation Team
ADC	Analogue-to-Digital Converter
ADEOS	Advanced Earth Observing System
ADF	Auxiliary Data File
ADS	Annotation Data Set
AGU	American Geophysical Union
AIRS	Atmospheric Infrared Sounder
ALC	Absolute Limb Correction
AMAX-DOAS	Airborne MAX-DOAS
AMC-DOAS	Air Mass Corrected DOAS

AMF	Airmass Factor
AMON	Absorption par les Minoritaires Ozone et NOx
ANX	Ascending Node Crossing
AO	Announcement of Opportunity
AO	Analogue Offset
AOCS	Attitude and Orbit Control System
AOI	Announcement of Opportunity Instrument
AOP	AO Instrument Provider
AOT	Aerosol Optical Thickness
APSM	Aperture Stop Mechanism
ARCF	Absolute Radiometric Calibration Facility
ASAR	Advanced Synthetic Aperture Radar
ASI	Agenzia Spaziale Italiana
ASM	Azimuth Scan Mechanism
ASUR	Airborne Submillimeter Radiometer
ATBD	Algorithm Theoretical Basis Document
ATC	Active Thermal Control
ATSR	Along-Track Scanning Radiometer
AZACM	Azimuth Aperture Cover Mechanism
BAER	Bremen Aerosol Retrieval
BCPS	Broadcast Pulse
BDPM	Bad and Dead Pixel Mask
BIRA-IASB	Belgisch Instituut voor Ruimte-Aëronomie / Institut d'Aéronomie Spatiale de Belgique
BIRRA	Beer InfraRed Retrieval Algorithm
BMFT	Bundesministerium für Forschung und Technologie
BOL	Begin-of-Life
BONBON	cryogenic whole air sampler for the collection of air samples in the stratosphere
BU	Binary Unit
BUV	Backscattered Ultraviolet
CA	Corrective Action
CARIBIC	Civil Aircraft for the Regular Investigation of the Atmosphere Based on an Instrument Container
C&C	Command & Control
CCA	Communication Area
CCM	Chemistry-Climate Model
CF	Cloud Fraction
CGT	Cloud Geometrical Thickness
CINDI	Cabauw Intercomparison Campaign of Nitrogen Dioxide Measuring Instruments
CLRTAP	Convention on Long-Range Transboundary Air Pollution
CNES	Centre Nationale d'Etudes Spatiales
COT	Cloud Optical Thickness
CPI	Cloud Phase Index
CSA	Canadian Space Agency
CTH	Cloud Top Height
CTI	Configurable Transfer Item
CTM	Chemical Transport Model
CTP	Cloud Top Pressure
C1	Category 1
C2	Category 2
DAK	Double-Adding code KNMI
DANDELIONS	Dutch Aerosol and Nitrogen Dioxide Experiments for Validation of OMI and SCIAMACHY
DARA	Deutsche Agentur für Raumfahrtangelegenheiten

DBU	Digital Bus Unit
DDS	Data Dissemination System
DFD	Deutsches Fernerkundungs-Datenzentrum
DHCM	Decontamination Heater Control Module
DIAL	Differential Absorption Lidar
DLR	Deutsches Zentrum für Luft- und Raumfahrt
DME	Detector Module Electronics
DNPM	Deutsch-Niederländisches Projektmanagement
DNX	Descending Node Crossing
DOAS	Differential Optical Absorption Spectroscopy
DORIS	Doppler Orbitography and Radiopositioning by Satellite
D-PAC	German PAC
DU	Dobson Unit
EA	Electronic Assembly
EADS	European Aeronautic Defense and Space Company
ECMWF	European Centre for Medium-Range Weather Forecasts
ECPL	Environmental Chemical Processes Laboratory
EDI	ESA Developed Instrument
EEPROM	Electrical Erasable Programmable Read Only Memory
ELACM	Elevation Aperture Cover Mechanism
ELHYSA	Etude l'Hygrométrie Stratosphérique
EMC	Electromagnetic Compatibility
ENVISAT	Environmental Satellite
ENVISOLAR	Environmental Information Services for Solar Energy Industries
EO	Earth Observation
EOL	End-of-Life
EOS	Earth Observing System
E-PAC	Spanish PAC
EPS	EUMETSAT Polar System
ERBS	Earth Radiation Budget Satellite
ERS	European Remote Sensing Satellite
ESA	European Space Agency
ESABC	ENVISAT Stratospheric Aircraft and Balloon Campaign
ESM	Elevation Scan Mechanism
ESOC	European Space Operation Centre
ESRIN	European Space Research Institute
ESTEC	European Space Research and Technology Centre
EU	European Union
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites
EURAD	European Air Pollution Dispersion model
EURECA	European Retrievable Carrier
EUTELSAT	European Telecommunications Satellite
EUV	Extreme UV
EVDC	ENVISAT Validation Data Centre
FD	Fast Delivery
FMI	Finnish Meteorological Institute
Fin CoPAC	Finnish Co-PAC
FIRS	Far-Infrared Spectrometer
FISH	Fast In Situ Stratospheric Hygrometer
FOCC	Flight Operation Control Centre
FODP	Flight Operation and Data Plan
FOS	Flight Operation Segment
FoV	Field of View
F-PAC	French PAC
FRESCO	Fast Retrieval Scheme for Clouds from the Oxygen A-band
FTIR	Fourier Transform Infrared

FTS	Fourier Transform Spectrometer
GAW	Global Atmospheric Watch
GBMCD	Ground-Based Measurement and Campaign Database
GCM	General Circulation Model
GDF	General Distribution Function
GDP	GOME Data Processor
GEO	Global Earth Observation
GeoFIS	Geostationary Fourier Transform Interferometer
GEOSS	Global Earth Observation System of Systems
GeoSCIA	Geostationary Scanning Imaging Absorption Spectrometer
GeoTROPE	Geostationary Tropospheric Explorer
GMES	Global Monitoring for Environment and Security
GOME	Global Ozone Monitoring Experiment
GOMETRAN	radiative transfer model for GOME
GOMOS	Global Ozone Monitoring by Occultation of Stars
GOSAT	Greenhouse Gas Observing Satellite
GSFC	Goddard Space Flight Center
HALOE	Halogen Occultation Experiment
HALOX	Halogen Oxides balloon experiment
HALOX-B	HALOX for Balloons
HICRU	Heidelberg Iterative Cloud Retrieval Utilities
HK	Housekeeping
HSM	High Speed Multiplexer
IABG	Industrieanlagen-Betriebsgesellschaft
IASI	Infrared Atmospheric Sounding Interferometer
ICARTT	International Consortium of Atmospheric Research on Transport and Transformation
ICU	Instrument Control Unit
ID	Identifier
IECF	Instrument Engineering and Calibration Facility
IFoV	Instantaneous Field of View
IGACO	Integrated Global Atmospheric Chemistry Observations
ILAS	Improved Limb Atmospheric Spectrometer
ILoS	Instantaneous Line of Sight
IMAP	Iterative Maximum a Posteriori
IMAU	Institute of Marine and Atmospheric Research Utrecht
IMF	Institut für Methodik der Fernerkundung
IMG	Interferometric Monitor for Greenhouse Gases
IMIA	Instrument Mission Implementation Agreement
IMLM	Iterative Maximum Likelihood Method
INCA	Interaction of Chemistry and Aerosol
INTA	Instituto Nacional de Técnica Aeroespacial
INTEX	Intercontinental Chemical Transport Experiment
INTEX-NA	Intercontinental Chemical Transport Experiment – North America
IOM	Instrument Operation Manual
I-PAC	Italian PAC
IPCC	Intergovernmental Panel of Climate Change
IR	Infrared
IRS	Infrared Sounder
ISCCP	International Satellite Cloud Climatology Project
IST	Integrated System Team
IT	Integration Time
ITCT	Intercontinental Transport and Chemical Transformation
ITOP	Intercontinental Transport of Ozone and Precursors
IUP	Institut für Umwelphysik (Heidelberg)
IUP-IFE	Institut für Umwelphysik / Institut für Fernerkundung (Bremen)

JAXA	Japan Aerospace Exploration Agency
JPL	Jet Propulsion Laboratory
KNMI	Koninklijk Nederlands Meteorologisch Instituut
LC	Leakage Current
LEOP	Launch and Early Operation Phase
LIDORT	Linearized Discrete Ordinate Radiative Transfer
LLI	Life Limited Item
LoS	Line-of-Sight
LPMA	Laboratoire de Physique Moléculaire et Applications
LPMA-DOAS	Limb Profile Monitoring of the Atmosphere DOAS
LRAC	Low Rate Reference Archive Centre
LRR	Laser Retro-Reflector
LSCE	Laboratoire des Sciences du Climat et de l'Environnement
MACC	Monitoring Atmospheric Composition and Climate
MANTRA	Middle Atmosphere Nitrogen Trend Assessment balloon experiment
MAP	Measurement of Atmospheric Pollution
MASI	Models and Data Assimilation, Satellite Intercomparison
MAX-DOAS	Multi-Axis DOAS
McArtim	Monte Carlo Atmospheric Radiative Transfer Inversion Model
MCFA	MERIS Cloud Fraction Algorithm
MCMD	Macrocommand
MDS	Measurement Data Set
MERIS	Medium Resolution Imaging Spectrometer
METEOSAT	Meteorological Satellite
METOP	Meteorological Operational Satellite
MIPAS	Michelson Interferometer for Passive Atmospheric Sounding
MIPAS-B	MIPAS for Balloons
MIR	Montgolfier Infra-Red
MLI	Multilayer Insulation
MLS	Microwave Limb Sounder
MLST	Mean Local Solar Time
MLT	Mesosphere Lower Thermosphere
MO&C	Moon Occultation & Calibration
MODIS	Moderate Resolution Imaging Spectroradiometer
MOPITT	Measurements of Pollution in the Troposphere
MOZAIC	Measurement of Ozone and Water Vapour by Airbus In-service Aircraft
MPH	Main Product Header
MPS	Mission Planning System
MSG	METEOSAT Second Generation
MTG	METEOSAT Third Generation
MWR	Microwave Radiometer
NADIR	NILU Atmospheric Database for Interactive Retrieval
NASA	National Aeronautics and Space Administration
NASDA	National Space Development Agency of Japan
NCW	Nadir Calibration Window
NCWM	Nadir Calibration Window Mechanism
NDACC	Network for the Detection of Atmospheric Composition Change
NDF	Neutral Density Filter
NDFM	Neutral Density Filter Mechanism
NDSC	Network for the Detection of Stratospheric Change
NEAQS	New England Air Quality Study
NGDC	National Geophysical Data Center
NH	Northern Hemisphere
NILU	Norsk Institutt for Luftforskning
NIR	Near Infrared
NIS	New Independent States

NIVR	Nederlands Instituut voor Vliegtuigontwikkeling en Ruimtevaart
NLC	Noctilucent Cloud
NNDEC	Non-nominal Decontamination
NOAA	National Oceanic and Atmospheric Administration
NOXAR	Measurements of Nitrogen Oxides and Ozone along Air Routes
NPP	NPOESS Preparatory Project
NPOESS	National Polar-orbiting Operational Environmental Satellite System
NRL	Naval Research Laboratory
NRSC	National Remote Sensing Centre Ltd
NRT	Near-realtime
NSO	Netherlands Space Office
OA	Optical Assembly
OBM	Optical Bench Module
OBT	On-Board Time
OCM	Orbit Control Manoeuvre
OCO	Orbiting Carbon Observatory
OCR	Operation Change Request
OCRA	Optical Cloud Recognition Algorithm
OE	Optimal Estimation
OIP	Optique et Instruments de Précision
OL	Offline
OLEX	Ozone Lidar Experiment
OMI	Ozone Monitoring Instrument
OMPS	Ozone Monitoring and Profiling Suite
OPTEC	Optical Test Facility
OSIRIS	Optical Spectrograph and Infrared Imaging System
OU	Optical Unit
PAC	Processing and Archiving Facility
PDAS	Payload Data Acquisition Station
PDCC	Payload Data Control Center
PDHS	Payload Data Handling Station
PDHS-E	Payload Data Handling Station – ESRIN
PDHS-K	Payload Data Handling Station – Kiruna
PDS	Payload Data Segment
PET	Pixel Exposure Time
PFM	Proto Flight Model
PI	Principle Investigator
PMC	Polar Mesospheric Cloud
PMC	Payload Management Computer
PMD	Polarisation Measurement Device
PMTU	Power Mechanism and Thermal Control Unit
POAM	Polar Ozone and Aerosol Measurement
POEM	Polar Orbit Earth Observation Mission
POLARCAT	Polar Study using Aircraft, Remote Sensing, Surface Measurements and Modelling of Climate, Chemistry, Aerosols and Transport
POLDER	Polarization and Directionality of the Earth's Radiance
PPG	Pixel-to-Pixel Gain
PROMOTE	Protocol Monitoring for the GMES Service Element
PSC	Polar Stratospheric Cloud
QBO	Quasi-biennial Oscillation
QWG	Quality Working Group
RA-2	Radar Altimeter 2
RAD A	Radiator A
RADIBAL	Radiomètre Balloon
RAM	Random Access Memory
RASA	Russian Aviation and Space Agency

RE	Radiated Emission
RGB	Red, Green, Blue
RH	Relative Humidity
RLC	Relative Limb Correction
RMS	Root Mean Square
ROSE	Research on Ozone in the Stratosphere and its Evolution
RR	Reduced Resolution
RRU	Radiant Reflector Unit
RS	Radiated Susceptibility
RSM	Reference Sector Method
RT	Random Telegraph
RTCS	Relative Time Command Sequence
RTM	Radiative Transfer Model
SAA	South Atlantic Anomaly
SABER	Sounding of the Atmosphere using Broadband Emission Radiometry
SACURA	Semi-Analytical Cloud Retrieval Algorithm
SAGE	Stratospheric Aerosol and Gas Experiment
SALOMON	UV-VIS Spectrometer
SAM	Stratospheric Aerosol Measurement
SAOZ	Système d'Analyse par Observations Zénithale
SAUNA	Sodankylä Total Column Ozone Intercomparison
SBUV	Solar Backscatter Ultraviolet instrument
SCCVT	SCIAMACHY Calibration and Verification Team
SCD	Slant Column Density
SCIA-BAER	SCIAMACHY Bremen Aerosol Retrieval
SCIAMACHY	Scanning Imaging Absorption Spectrometer for Atmospheric Chartography
SCIARAYS	toolbox for radiative transfer modeling and atmospheric parameter retrieval in the UV-VIS
SCIATRAN	radiative transfer model for SCIAMACHY
SCIAVALIG	SCIAMACHY Validation and Interpretation Group
SCIA-VALUE	SCIAMACHY Validation and Utilization Experiment
SCOOP	SCIAMACHY On-board Operation Plan
SDLA-LAMA	Spectromètre à Diode Laser Accordable Laser pour l'Analyse du Méthane Atmosphérique
SDOAS	SCIAMACHY DOAS
SDPU	Science Data Processing Unit
SEM	Simplified Engineering Model
SEU	Single Event Upset
SF	Sun Follower
SFCM	Stellar Fine Control Manoeuvre
SFM	Spectrophotometer
SGP	SCIAMACHY Ground Processor
SH	Southern Hemisphere
SIM	Spectral Irradiance Monitor
SIRD	SCIAMACHY Instrument Requirements Document
SJT	SCIAMACHY Joint Team
SLS	Spectral Line Source
SME	Solar Mesospheric Explorer
SMR	Sun Mean Reference
SMR	Submillimeter Radiometer
SNR	Signal-to-Noise Ratio
SNSB	Swedish National Space Board
SOA	Secondary Organic Aerosol
SO&C	Sun Occultation & Calibration
SODAP	Switch-on and Data Acquisition Phase
SOLSPEC	Solar Spectrum Measurement

SOLSTICE	Solar Stellar Irradiance Comparison Experiment
SOR	SCIAMACHY Operations Request
SOST	SCIAMACHY Operations Support Team
S-PAC	Swedish PAC
SPCA	SCIAMACHY PMD Cloud Algorithm
SPE	Solar Proton Event
SPH	Special Product Header
SPICAV	Spectroscopy for Investigation of Characteristics of the Atmosphere of Venus
SPICI	SCIAMACHY PMD Identification of Clouds and Ice/snow
SPICS	SCIAMACHY PMD based Identification and Classification of Clouds and Surfaces
SPIRALE	Spectroscopie Infra-Rouge par Absorption de Laser Embarqué
SQWG	SCIAMACHY QWG
SRC	SCIAMACHY Radiant Cooler
SRON	SRON Netherlands Institute for Space Research
SSAG	SCIAMACHY Science Advisory Group
SSC	Swedish Space Corporation
SSI	Solar Spectral Radiance
SSM/I	Special Sensor Microwave Imager
STM	Structural Model
SUSIM	Solar Ultraviolet Spectral Irradiance Monitor
SWIR	Short-Wave Infrared
SYNEAR	Synergetic Aerosol Retrieval
SYSM	Stellar Yaw Steering Mode
SZA	Solar Zenith Angle
TANSO	Thermal and Near Infrared Sensor for Carbon Observation
TB	Thermal Balance
TC	Thermal Control
TCFoV	Total Clear Field of View
TCCON	Total Carbon Column Observing Network
TEMIS	Tropospheric Emission Monitoring Internet Service
TES	Tropospheric Emission Spectrometer
TM	Transport Model
TOA	Top-of-Atmosphere
TOMS	Total Ozone Mapping Spectrometer
TOSOMI	Total Ozone retrieval scheme for SCIAMACHY based on the OMI DOAS algorithm
TNO-TPD	Technisch-Naturwetenschappelijk Onderzoek – Technisch Fysische Dienst
TRACY	Trace Gas Radiative Transfer Monte Carlo Y(I)mplementation
TRIPLE	Multi-instrument balloon payload
TRUE	Tangent Height Retrieval by UV-B
TV	Thermal Vacuum
TWIN	Multi-instrument balloon payload
UARS	Upper Atmosphere Research Satellite
UK	United Kingdom
UK-PAC	United Kingdom PAC
US	United States
UTC	Universal Time Coordinated
UV	Ultraviolet
UVAI	UV Aerosol Index
UVN	UV-VIS-NIR
UVNS	UV-VIS-NIR-SWIR
UVSCI	UV Scattering Index
VA	Value-added
VCD	Vertical Column Density

VEX	Venus Express
VIRTIS	Visible and Infrared Thermal Imaging Spectrometer
VIS	Visible
VOC	Volatile Organic Compound
VSLS	Very Short-Lived Substances
WFM-DOAS	Weighting Function Modified DOAS
WGS84	World Geodetic System 1984
WLS	White Light Source
WMO	World Meteorological Organization