

Acronyms and Abbreviations

ACCENT – Atmospheric Composition Change The European Network of Excellence
ACE-Asia – Asian Pacific Regional Aerosol Characterization Experiment
ACPD – Atmospheric Chemistry and Physics Discussions
AEROCE – Atmosphere/Ocean Chemistry Experiment
AEROCOM – Aerosol Comparisons between Observations and Models, a global aerosol model intercomparison project
AIRS – Atmospheric Infrared Sounder
AMMA – African Monsoon Multidisciplinary Analysis
AO – Arctic/Atlantic Oscillation
AOD – Aerosol Optical Properties
Aqua – A NASA polar-orbiting satellite
AR – Arctic
BB-NO_x – global NO_x emissions from Biomass Burning
BC – Black Carbon
CAFE – Clean Air For Europe
CAI-Asia – Clean Air Initiative-Asia
CAIR – Clean Air Interstate Rule
CALIPSO – Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations
CAPTEX – Cross-Appalachian Tracer Experiment
CCB – Cold Conveyor Belt
CEPMEIP – Co-ordinated European Programme on Particulate Matter Emission Inventories, Projections and Guidance
CIAM – Centre for Integrated Assessment Modelling (part of EMEP)
CIFEX – Cloud Indirect Forcing Experiment
CLRTAP – Convention on Long Range Transboundary Air Pollution
CMAQ – Community Multiscale Air Quality Model
CORINAIR – Coordination of Information on the Environment – Air
CTM – Chemical Transport Model
DA – Dry Airstream
DAYS60 – number of days with 8 hours running average ozone concentrations in excess of 60 ppbv
DG Environment – Directorate-General (European Commission's Environment)
DMS – Dimethylsulfide
EA – East Asia
EANET – Acid Deposition Monitoring Network in East Asia
EARLINET – European Aerosol Research Lidar Network
EC – Elemental Carbon
EDGAR – Emissions Database for Global Atmospheric Research
EMEP – European Monitoring and Evaluation Programme
ENSO – El Nino Southern Oscillation
ENVISAT – European Space Agency Environmental Satellite
EPER – European Pollutant Emission Register
ETEX – European Tracer Experiment
EU – European Union

FAO – Food and Agricultural Organization
GAINS – Greenhouse gas and Air pollution Interactions and Synergies
GAP – Global Atmospheric Pollution Forum
GAW – Global Atmospheric Watch Program (within WMO)
GCM – General Circulation Model
GEIA – Global Emissions Inventory Activity
GEO – Group on Earth Observations
GEOS-CHEM – A global 3-D atmospheric composition model driven by data from the
Goddard Earth Observing System
GEOSS – Global Earth Observing System of Systems
GFED – Global Fire Emissions Database
GHG – Greenhouse Gases
GISS – Goddard Institute for Space Studies (part of NASA)
GOCART – Goddard Global Ozone Chemistry Aerosol Radiation Transport
GOME – Global Ozone Monitoring Experiment
HIRDLS – High Resolution Dynamics Limb Sounder
IAGOS – Integration of routine Aircraft measurements into a Global Observing System
ICAO – International Civil Aviation Organization
ICARTT – International Consortium for Atmospheric Research on Transport and
Transformation
ICT – Intercontinental Transport
IEA – International Energy Agency
IFB-NO_x – NO_x from fossil fuel combustion (F), biofuel combustion (B) and industrial
activities (I),
IGAC – International Global Atmospheric Chemistry
IGACO – Integrated Global Atmospheric Chemistry Observations
IGBP – International Geosphere-Biosphere Programme (part of the International Council
of Scientific Unions)
IIASA – International Institute for Applied Systems Analysis
IMO – International Maritime Organization
IMPROVE – Interagency Monitoring of Protected Visual Environments
INTEX – Intercontinental Chemical Transport Experiment
IPCC – Intergovernmental Panel on Climate Change
ITCT – Intercontinental Transport and Chemical Transformation
ITCZ – Intertropical Convergence Zone
JJA – June, July, August
LRTAP – Long-range Transboundary Air Pollution
MBE – Mean Bias Error
MICS-Asia – Model Inter-Comparison Study for Asia
MILAGRO – Megacity Initiative: Local and Global Research Observations
MISR – Multiangle Imaging Spectro-Radiometer
MLS – Microwave Limb Sounder
MODIS – Moderate Resolution Imaging Spectroradiometer
MOPITT – Measurements Of Pollution In The Troposphere
MOZAIC – Measurement of Ozone on Airbus In-service Aircraft
MOZART – Model of Ozone and Related Tracers

MSA – Methanesulfonic Acid
MSC-E – Meteorological Synthesizing Center-East
MSC-W – Meteorological Synthesizing Center-West
NA – North America
NAAQS – National Ambient Air Quality Standards
NAM – Northern Annular Mode
NAO – North Atlantic Oscillation
NARSTO – North American Research Strategy for Tropospheric Ozone
NASA – National Aeronautics and Space Administration
NATAIR – Natural and biogenic emissions and Assessment of Impacts on Air Quality
NCEP – National Center for Environmental Prediction
NEI – National Emission Inventory
NH – Northern Hemisphere
NILU – Norwegian Institute for Air Research
NMHC – Non-Methane Hydrocarbons
NMVOC – Non-Methane Volatile Organic Compounds
NOAA – National Oceanic and Atmospheric Administration
NO_y – total reactive nitrogen
Nr – reactive nitrogen (combination of NO_y and NH_x)
nss-SO₄⁼ – non-seasalt sulfate
OC – Organic Carbon
OECD – Organisation for Economic Co-operation and Development
OMI – Ozone Monitoring Instrument
PAN – Peroxyacetyl Nitrate
PBL – Planetary Boundary Layer
PCFA – Post Cold Front Airstream
PEM-West B – Pacific Exploratory Mission, Session B
PHOENICS – Particles of Human Origin Extinguishing Natural solar radiation In
Climate Systems
PM – Particulate Matter
POET – Precursors of Ozone and their Effects in the Troposphere, an EU project
POLARCAT – Polar study using Aircraft, Remote sensing, surface measurements and
models, of Climate chemistry, Aerosols and Transport
POM – Polycyclic/Particulate Organic Matter
POP – Persistent Organic Pollutant
ppbv – parts per billion by volume
QUANTIFY – Quantifying the Climate Impact of Global and European Transport
Systems, an EU project
RAINS – Regional Air Pollution Information and Simulation model
RAPID-C – Regional Air Pollution In Developing Countries
REAS – Regional Emissions Inventory in Asia
RETRO – Reanalysis of the Tropospheric chemical composition
S/R – source-receptor
SA – South Asia
SBUV – Solar Backscatter Ultraviolet Radiance
SCIAMACHY – Scanning Imaging Absorption Spectrometer for Atmospheric

Chartography/Chemistry

SH – Southern Hemisphere

SON – September, October, November

SO_x – anthropogenic sulphur (combination of SO₂ and SO₄)

SPARC – Stratospheric Processes and Their Role in Climate (part of WMO)

SRES – Special Report on Emissions Scenarios

SST – Sea Surface Temperatures

STE – Stratosphere-Troposphere Exchange

TEAM model – TNO Emission Assessment Model

TERRA – Tandem Accelerator for Environmental Research and Radiocarbon Analysis

TES – Tropospheric Emission Spectrometer

TF HTAP – Task Force on Hemispheric Transport of Air Pollutants

TFEIP – Task Force on Emission Inventories and Projections

TOMS – Total Ozone Mapping Spectrometer

TRACE-P – Transport and Chemical Evolution over the Pacific

TRANSCOM – Atmospheric Tracer Transport Model Intercomparison Project

U.S. EPA – United States Environmental Protection Agency

UK DEFRA – United Kingdom Department of Environment, Food, and Rural Affairs

UNECE – United Nations Economic Commission for Europe

UNFCCC – United Nations Framework Convention on Climate Change

VOC – Volatile Organic Compounds

WCB – Warm Conveyor Belt

WCRP – World Climate Research Programme (part of WMO)

WMO – World Meteorological Office

Chemical Abbreviations

C – carbon

CO – carbon dioxide

CH₄ – methane

HCHO – formaldehyde

O₃ – ozoneNO₂ – nitrogen dioxideNO_x – nitrogen oxideSO₂ – sulfur dioxide