
Acronyms and Abbreviations

ACARS	Aerodynamic (Research Incorporated) Communication and Recording System
ACSYS	Arctic Climate System Study
AER	Atmospheric Environmental Research, Inc.
AERI	Atmospheric Emitted Radiance Interferometer
AFOSR	Air Force Office of Scientific Research
AGARD	Advisory Group for Aerospace Research and Development
ALFA	AER Local Forecast and Assimilation (model)
AMIP	Atmospheric Model Intercomparison Project
ARCS	Atmosphere Radiation and Cloud Stations
ARCSS	Arctic System Science (NSF)
ARCSYM	Arctic Regional Climate System Model
ARINC	Aerodynamic Research Incorporated Communication
ARM	Atmospheric Radiation Measurement program
AS	anvil stratus
ASTER	Atmosphere-Surface Turbulent Exchange Research
ASTEX	Altantic Stratocumulus Transition EXperiment
ATMIS-II	Atmospheric Moisture Intercomparison Study
AVHRR	advanced very high resolution radiometer
BAO	Boulder Atmospheric Observatory
BATS.1E	Biosphere-Atmosphere Transfer Scheme, Version 1E
BBSS	balloon-borne sounding system
BF	boundary facility
BT	back trajectory
CAMEX	Convection and Moisture Experiment
CART	Cloud and Radiation Testbed
CCM1	Community Climate Model, Version 1 (National Center for Atmospheric Research)
CCN	cloud condensation nuclei
CDL	cloud detection lidar
CEM	cloud ensemble model
CEPEX	Central Equatorial Pacific Experiment
CF	Central Facility
CFC	chloro-fluorocarbon
CGCM	coupled (ocean-atmosphere) general circulation model
CIDS	CEPEX Integrated Data System
CIMMS	Cooperative Institute of Mesoscale Meteorological Studies (University of Oklahoma)
CIRES	Cooperative Institute for Research in Environmental Sciences
CL	convective precipitation over land
CLASS	cross-chain loran atmospheric sounding system
CLIVAR	Climate Variability and Predictability (program)
COARE	Coupled Ocean Atmosphere Response Experiment
CODE	Center for Orbit Determination in Europe
CPRS	Cloud Profiling Radar System
CRM	cloud-resolving simulation
CSU	Colorado State University
CTBL	cloud-topped boundary layer
CW	convective precipitation over water

DBIS	double beam interferometer sounder
DISORT	DIScrete Ordinate Radiative Transfer
DSD	drop size distribution
DVN	daytime versus nighttime
EBBR	energy balance Bowen ratio
ECMWF	European Centre for Medium-Range Weather Forecasts
EMEX	Equatorial Mesoscale Experiment
EML	Environmental Measurements Laboratory (DOE)
EOF	empirical orthogonal functions
EOS	Earth Observing System (initiative)
ERBE	Earth Radiation Budget Experiment
ERL	Environmental Research Laboratories (NOAA)
ERS-1	European Research Satellite - 1
ESFT	exponential sum fitting of transmission (technique)
ETL	Environmental Technology Laboratory (NOAA)
FASINEX	First Air-Sea Interaction Experiment
FCC	fractional cloud cover
FIRE	First ISCCP Regional Experiment
FTIR	Fourier transform interferometer
FSL	Forecast System Laboratory (NOAA)
GALE	Genesis of Atmosphere Lows Experiment
GARP	Global Atmospheric Research Program
GATE	GARP Atlantic Tropical Experiment
GCM	general circulation model
GENESIS	Global ENVIRONMENTAL and Ecological Simulation of Interactive Systems
GEWEX	Global Energy and Water Experiment (WCRP)
GISS	Goddard Institute for Space Studies
GMS	Geostationary Meteorological Satellite
GOALS	Global Ocean-Atmosphere-Land System
GOES	Geostationary Operational Environmental Satellite
GPS	Global Positioning System
GSFC	Goddard Space Flight Center
HAPEX	Hydrologic Atmospheric Pilot Experiment
HIS	High-resolution Interferometer Sounder
HL	high latitude
HONER	hemispherical optimized net radiometer
HR	heating rate
ICL	integrated cloud liquid
ICRCCM	InterComparison of Radiation Codes in Climate Models
IDP	Instrument Development Program
IGAC GEIA	International Global Atmospheric Chemistry Global Emissions Inventory Activity
IOP	intensive observation period

IPM	instrument performance model
IR	infrared
ISAN	ISentropic ANalysis (package)
ISCCP	International Satellite Cloud Climatology Project
ISS	integrated sounding systems
ITCZ	intertropical convergence zone
ITPP	International TOVS Processing Package
IWP	ice water path
JD	Julian Day
JPL	Jet Propulsion Laboratory (NASA)
JFD	joint frequency distribution
LAI	Land-Atmosphere-Ice-Interactions
LBLRTM	line-by-line radiative transfer model
LEADEX	Lead Experiment
LES	large-eddy simulation (model)
LIDAR	lidar/radiometer
LLNL	Lawrence Livermore National Laboratory
LPDM	Lagrangian Particle Dispersion Model
LRT	Locale Recommendation Team
LTE	local thermodynamic equilibrium
LWC	liquid water content
LWP	liquid water path
LWR	longwave radiation
MBL	marine boundary layer
MCS	mesoscale convective system
MCTEX	Marine Continent Thunderstorm Experiment
mdr	minimum detectable radiance
MFRSR	multi-filter rotating shadowband radiometer
MJO	Madden-Julian Oscillation
MLS	mid-latitude summer
MLW	mid-latitude winter
MM5	mesoscale model 5 (Pennsylvania State/National Center for Atmospheric Research)
MODIS	moderate-resolution imaging spectroradiometer
MODTRAN	Moderate Resolution Atmospheric Radiance and Transmittance Model
MPIR	multispectral pushbroom imaging radiometer
MS	marine stratus
MSX	Mid-Course Space Experiment
MWR	microwave water radiometer
MWSR	microwave water substance radiometer
NASA	National Aeronautics and Space Administration
NCAR	National Center for Atmospheric Research
NCSU	North Carolina State University
NEP	noise equivalent power

NGS	National Geodetic Survey (NOAA)
NIGEC	National Institute for Global Environmental Change
NMC	National Meteorological Center
NOAA	National Oceanic and Atmospheric Administration
NSA/AO	North Slope of Alaska and adjacent Arctic Ocean
OAC	optical absorption monitor
OAI	Ocean-Atmosphere-Ice Interactions Program
OLR	outgoing longwave radiation
ONR	Office of Naval Research
OPC	optical particle counter
OSSE	observation simulation system experiments
PAM	portable automated mesonet
PBL	planetary boundary layers
PIR	Precision Infrared Radiometer
PL	Pomraning-Livermore
PMEL	Pacific Marine Environmental Laboratory
POES	Polar Orbiting Environmental Satellite
PROBE	Pilot Radiation Observation Experiment
PSP	precision spectral pyranometer
PWV	precipitable water vapor
QME	quality measurement experiments
RAMS	regional atmospheric modeling system
RASS	radio-acoustic sounding system
RCS	remote cloud sensing
RegCM2	Regional Climate Model, Version 2 (NCAR)
RF	radio frequency
RH	relative humidity
SAGE	Stratospheric Aerosol and Gas Experiment
SAS	sub-arctic summer
SAW	sub-arctic winter
SCM	single-column model
SCOPE	San Clemente Ocean Probing Experiment
SDS	site data system
SGP	Southern Great Plains
SHEBA	Surface Heat Budget of the Arctic Ocean
SIROS	solar and infrared radiation observation stations
SJ	Somali Jet
SL	stable precipitation over land
SMOS	surface meteorological observation system
SORTI	SOLar Radiance Transmission Interferometer
SPECTRE	Spectral Radiance Experiment

SPIE	Society of Photo-optic Instrumentation Engineers
SSM/I	Special Sensor Microwave/Imager
SST	sea-surface temperature
	Site Scientist Team
SW	shortwave
SWR	shortwave radiation
TAO	Tropical Atmosphere Ocean
TDDR	total direct diffuse radiometer
TDLAS	tunable diode laser absorption spectrometer
TEA	transverse-excited atmospheric pressure
TEJ	tropical easterly jet
TIROS	television and infrared observation satellite
TIWE	Tropical Instability Wave Experiment
TOA	top of the atmosphere
TOGA	Tropical Ocean Global Atmosphere
TOMS	Total Ozone Mapping Experiment Spectrometer
TOVS	TIROS operational vertical sounder
TIWE	Tropical Instability Wave Experiment
TWP	tropical Western Pacific
UAV	unmanned aerospace vehicle
UAV-AERI	miniaturized version of the ground-based Atmospheric Emitted Radiance Interferometer (AERI)
UCAR	University Corporation for Atmospheric Research
UDF	UAV demonstration flights
UIF	UAV interim flight
UNAVCO	University Navstar Consortium
VDA	variational data assimilation
VOCAR	Variation of Coastal Atmospheric Refractivity
VORTEX	verification of the origins of rotation in tornadoes experiment
WCRP	World Climate Research Programme
WHOI	Woods Hole Oceanographic Institution
WISP	Winter Icing and Storms Program
WP	warm pool
WSFO	Weather Service Forecast Office
WV	water vapor
WVR	water vapor radiometer