

Appendix V

Acronyms and Abbreviations

AABW	Antarctic Bottom Water
AAO	Antarctic Oscillation
ABL	Atmospheric Boundary Layer
ACC	Antarctic Circumpolar Current
ACE	Aerosol Characterisation Experiment
ACRIM	Active Cavity Radiometer Irradiance Monitor
ACSYS	Arctic Climate System Study
ACW	Antarctic Circumpolar Wave
AEROCE	Atmosphere Ocean Chemistry Experiment
AGAGE	Advanced Global Atmospheric Gases Experiment
AGCM	Atmospheric General Circulation Model
AGWP	Absolute Global Warming Potential
AMIP	Atmospheric Model Intercomparison Project
ANN	Artificial Neural Networks
AO	Arctic Oscillation
AOGCM	Atmosphere-Ocean General Circulation Model
ARESE	Atmospheric Radiation Measurement Enhanced Shortwave Experiment
ARGO	Part of the Integrated Global Observation Strategy
ARM	Atmospheric Radiation Measurement
ARPEGE/OPA	Action de Recherche Petite Echelle Grande Echelle/Océan Parallélisé
ASHOE/MAESA	Airborne Southern Hemisphere Ozone Experiment/Measurement for Assessing the Effects of Stratospheric Aircraft
AVHRR	Advanced Very High Resolution Radiometer
AWI	Alfred Wegener Institute (Germany)
BAHC	Biospheric Aspects of the Hydrological Cycle
BC	Black Carbon
BERN2D	Two-dimensional Climate Model of University of Bern
BIOME 6000	Global Palaeo-vegetation Mapping Project
BMRC	Bureau of Meteorology Research Centre (Australia)
CART	Classification and Tree Analysis
CCA	Canonical Correlation Analysis
CCC(ma)	Canadian Centre for Climate (Modelling and Analysis) (Canada)
CCM	Community Climate Model
CCMLP	Carbon Cycle Model Linkage Project
CCN	Cloud Condensation Nuclei
CCSR	Centre for Climate System Research (Japan)
CERFACS	European Centre for Research and Advanced Training in Scientific Computation (France)
CIAP	Climate Impact Assessment Program

CLIMAP	Climate: Long-range Investigation, Mapping and Prediction
CLIMBER	Climate-Biosphere Model
CLIMFACTS	Integrated Model for Assessment of the Effects of Climate Change on the New Zealand Environment
CMAP	CPC Merged Analysis of Precipitation
CMDL	Climate Monitoring and Diagnostics Laboratory of NOAA (USA)
CMIP	Coupled Model Intercomparison Project
CNRM	Centre National de Recherches Météorologiques (France)
CNRS	Centre National de la Recherche Scientifique (France)
COADS	Comprehensive Ocean Atmosphere Data Set
COHMAP	Co-operative Holocene Mapping Project
COLA	Centre for Ocean-Land-Atmosphere Studies (USA)
COSAM	Comparison of Large-scale Atmospheric Sulphate Aerosol Model
COSMIC	Country Specific Model for Intertemporal Climate
COWL	Cold Ocean Warm Land
CPC	Climate Prediction Center of NOAA (USA)
CRF	Cloud Radiative Forcing
CRU	Climatic Research Unit of UEA (UK)
CRYOSat	Cryosphere Satellite
CSG	Climate Scenario Generator
CSIRO	Commonwealth Scientific and Industrial Research Organisation (Australia)
CSM	Climate System Model
CTM	Chemistry Transport Model
DARLAM	CSIRO Division of Atmospheric Research Limited Area Model
DDC	Data Distribution Centre of IPCC
DGVM	Dynamic Global Vegetation Model
DERF	Dynamical Extended Range Forecasting group of GFDL (USA)
DIC	Dissolved Inorganic Carbon
DJF	December, January, February
DKRZ	Deutsche KlimaRechenZentrum (Germany)
DMS	Dimethylsulfide
DMSP	Defense Meteorological Satellite Program
DNM	Department of Numerical Mathematics (Russia)
DOC	Dissolved Organic Carbon
DOE	Department of Energy (USA)
DORIS	Determination d'Orbite et Radiopositionnement Intégrés par Satellite
DRF	Direct Radiative Forcing
DTR	Diurnal Temperature Range
DYNAMO	Dynamics of North Atlantic Models
EBM	Energy Balance Model
ECHAM	ECMWF/MPI AGCM
ECMWF	European Centre for Medium-range Weather Forecasting
ECS	Effective Climate Sensitivity
EDGAR	Emission Database for Global Atmospheric Research
EISMINT	European Ice Sheet Modelling initiative
EMDI	Ecosystem Model/Data Intercomparison
EMIC	Earth system Models of Intermediate Complexity
ENSO	El Niño-Southern Oscillation
EOF	Empirical Orthogonal Function
EOS	Earth Observing System
ERA	ECMWF Reanalysis
ERB	Earth Radiation Budget
ERBE	Earth Radiation Budget Experiment
ERBS	Earth Radiation Budget Satellite
ESCAPE	Evaluation of Strategies to Address Climate Change by Adapting to and Preventing Emissions
ESMR	Electrically Scanning Microwave Radiometer
EURECA	European Retrievable Carrier
FACE	Free Air Carbon-dioxide Enrichment

FAO	Food and Agriculture Organisation (UN)
FCCC	Framework Convention on Climate Change
FDH	Fixed Dynamical Heating
FF	Fossil Fuel
FPAR	Plant-absorbed Fraction of Incoming Photosynthetically Active Radiation
FSU	Former Soviet Union
GASP	Global Assimilation and Prediction
GCIP	GEWEX Continental-scale International Program
GCM	General Circulation Model
GCOS	Global Climate Observing System
GCR	Galactic Cosmic Ray
GDP	Gross Domestic Product
GEBA	Global Energy Balance Archive
GEIA	Global Emissions Inventory Activity
GEISA	Gestion et Etude des Informations Spectroscopiques Atmosphériques
GEWEX	Global Energy and Water cycle Experiment
GFDL	Geophysical Fluid Dynamics Laboratory (USA)
GHCN	Global Historical Climate Network
GHG	Greenhouse Gas
GIM	Global Integration and Modelling
GISP	Greenland Ice Sheet Project
GISS	Goddard Institute for Space Studies (USA)
GISST	Global Sea Ice and Sea Surface Temperature
GLOSS	Global Sea Level Observing System
GOALS	Global Ocean-Atmosphere-Land System
GPCP	Global Precipitation Climatology Project
GPP	Gross Primary Production
GPS	Global Positioning System
GRACE	Gravity Recovery and Climate Experiment
GRIP	Greenland Ice Core Project
GSFC	Goddard Space Flight Centre (USA)
GSWP	Global Soil Wetness Project
GUAN	GCOS Upper Air Network
GWP	Global Warming Potential
HadCM	Hadley Centre Coupled Model
HIRETYCS	High Resolution Ten-Year Climate Simulations
HITRAN	High Resolution Transmission Molecular Absorption Database
HLM	High Latitude Mode
HNLC	High Nutrient-Low Chlorophyll
HRBM	High Resolution Biosphere Model
IAHS	International Association of Hydrological Science
IAP	Institute of Atmospheric Physics (China)
IASB	Institut d'Aéronomie Spatiale de Belgique (Belgium)
IBIS	Integrated Biosphere Simulator
ICESat	Ice, Cloud and Land Elevation Satellite
ICSI	International Commission on Snow and Ice
ICSU	International Council of Scientific Unions
IGAC	International Global Atmospheric Chemistry
IGBP	International Geosphere Biosphere Programme
IGCR	Institute for Global Change Research (Japan)
IHDP	International Human Dimensions Programme on Global Environmental Change
IMAGE	Integrated Model to Assess the Global Environment
IN	Ice Nuclei
INDOEX	Indian Ocean Experiment
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPO	Interdecadal Pacific Oscillation

IPSL-CM	Institut Pierre Simon Laplace/Coupled Atmosphere-Ocean-Vegetation Model
ISAM	Integrated Science Assessment Model
ISCCP	International Satellite Cloud Climatology Project
ISLSCP	International Satellite Land Surface Climatology Project
ITCZ	Inter-Tropical Convergence Zone
IUPAC	International Union of Pure and Applied Chemistry
JGOFS	Joint Global Ocean Flux Study
JJA	June, July, August
JMA	Japan Meteorological Agency (Japan)
JPL	Jet Propulsion Laboratory of NASA (USA)
KNMI	Koninkrijk Nederlands Meteorologisch Instituut (Netherlands)
LAI	Leaf Area Index
LASG	State Key Laboratory of Numerical Modelling for Atmospheric Sciences and Geophysical Fluid Dynamics (China)
LBA	Large-scale Biosphere-atmosphere Experiment in Amazonia
LGGE	Laboratoire de Glaciologie et Géophysique de l'Environnement (France)
LGM	Last Glacial Maximum
LLNL	Lawrence Livermore National Laboratory (USA)
LMD	Laboratoire de Météorologie Dynamique (France)
LOSU	Level of Scientific Understanding
LPJ	Land-Potsdam-Jena Terrestrial Carbon Model
LSAT	Land Surface Air Temperature
LSG	Large-Scale Geostrophic Ocean Model
LSP	Land Surface Parameterisation
LT	Lifetime
LWP	Liquid Water Path
MAGICC	Model for the Assessment of Greenhouse-gas Induced Climate Change
MAM	March, April, May
MARS	Multivariate Adaptive Regression Splines
MGO	Main Geophysical Observatory (Russia)
MJO	Madden-Julian Oscillation
ML	Mixed Layer
MLOPEX	Mauna Loa Observatory Photochemistry Experiment
MODIS	Moderate Resolving Imaging Spectroradiometer
MOGUNTIA	Model of the General Universal Tracer Transport in the Atmosphere
MOM	Modular Ocean Model
MOZART	Model for Ozone and Related Chemical Tracers
MPI	Max-Planck Institute for Meteorology (Germany)
MRI	Meteorological Research Institute (Japan)
MSLP	Mean Sea Level Pressure
MSU	Microwave Sounding Unit
NADW	North Atlantic Deep Water
NAO	North Atlantic Oscillation
NARE	North Atlantic Regional Experiment
NASA	National Aeronautics and Space Administration (USA)
NBP	Net Biome Production
NCAR	National Center for Atmospheric Research (USA)
NCC	National Climate Centre (China)
NCDC	National Climatic Data Center of NOAA (USA)
NCEP	National Centers for Environmental Prediction of NOAA (USA)
NDVI	Normalised Difference Vegetation Index
NEP	Net Ecosystem Production
NESDIS	National Environmental Satellite, Data and Information Service of NOAA (USA)
NIC	National Ice Centre of NOAA (USA)
NIED	National Research Institute for Earth Science and Disaster Prevention (Japan)
NIES	National Institute for Environmental Studies (Japan)
NMAT	Night Marine Air Temperature

NMHC	Non-Methane Hydrocarbon
NOAA	National Oceanic and Atmospheric Administration (USA)
NPP	Net Primary Production
NPZD	Nutrients, Phytoplankton, Zooplankton and Detritus
NRC	National Research Council (USA)
NRL	Naval Research Laboratory (USA)
NWP	Numerical Weather Prediction
OC	Organic Carbon
OCMIP	Ocean Carbon-cycle Model Intercomparison Project
OCS	Organic Carbonyl Sulphide
OGCM	Ocean General Circulation Model
OLR	Outgoing Long-wave Radiation
OPYC	Ocean Isopycnal GCM
OxComp	Tropospheric Oxidant Model Comparison
PC	Principal Component
PCM	Parallel Climate Model
PDF	Probability Density Function
PDO	Pacific Decadal Oscillation
PEM	Pacific Exploratory Missions
PFT	Plant Functional Type
PGR	Post-Glacial Rebound
PhotoComp	Ozone Photochemistry Model Comparison
PICASSO	Pathfinder Instruments for Cloud and Aerosol Spaceborne Observations
PIK	Potsdam Institute for Climate Impact Research (Germany)
PILPS	Project for the Intercomparison of Land-surface Parameterisation Schemes
PIUB	Physics Institute University of Bern (Switzerland)
PMIP	Palaeoclimate Model Intercomparison Project
PNA	Pacific-North American
PNNL	Pacific Northwest National Laboratory (USA)
POC	Particulate Organic Carbon
POLDER	Polarisation and Directionality of the Earth's Reflectances
POPCORN	Photo-Oxidant Formation by Plant Emitted Compounds and OH Radicals in North-eastern Germany
PSMSL	Permanent Service for Mean Sea Level
PT	Perturbation Lifetime
QBO	Quasi-Biennial Oscillation
RAMS	Regional Atmospheric Modelling System
RCM	Regional Climate Model
RIHMI	Research Institute for Hydrometeorological Information
SAGE	Stratospheric Aerosol & Gas Experiment
SAR	IPCC Second Assessment Report
SAT	Surface Air Temperature
SBUV	Solar Backscatter Ultra Violet
SCAR-B	Smoke Cloud and Radiation-Brazil
SCE	Snow Cover Extent
SCENGEN	Scenario Generator
SCSWP	Small-scale Severe Weather Phenomena
SDD	Statistical-Dynamical Downscaling
SDGVM	Sheffield Dynamic Global Vegetation Model
SEFDH	Seasonally Evolving Fixed Dynamical Heating
SHEBA	Surface Heat Balance of the Arctic Ocean
SHI	State Hydrological Institute (Russia)
SIMIP	Sea Ice Model Intercomparison Project
SIO	Scripps Institution of Oceanography (USA)
SLP	Sea Level Pressure
SMMR	Scanning Multichannel Microwave Radiometer
SOA	Secondary Organic Aerosol
SOC	Southampton Oceanography Centre (UK)

SOHO	Solar Heliospheric Observatory
SOI	Southern Oscillation Index
SOLSTICE	Solar Stellar Irradiance Comparison Experiment
SON	September, October, November
SONEX	Subsonic Assessment Program Ozone and Nitrogen Oxide Experiment
SOS	Southern Oxidant Study
SPADE	Stratospheric Photochemistry, Aerosols, and Dynamics Expedition
SPARC	Stratospheric Processes and Their Role in Climate
SPCZ	South Pacific Convergence Zone
SRES	IPCC Special Report on Emission Scenarios
SSM/T-2	Special Sensor Microwave Water Vapour Sounder
SSM/I	Special Sensor Microwave/Imager
SST	Sea Surface Temperature
SSU	Stratospheric Sounding Unit
STRAT	Stratospheric Tracers of Atmospheric Transport
SUCCESS	Subsonic Aircraft Contrail and Cloud Effects Special Study
SUNGEN	State University of New York at Albany/NCAR Global Environmental and Ecological Simulation of Interactive Systems
SUSIM	Solar Ultraviolet Spectral Irradiance Monitor
TAR	IPCC Third Assessment Report
TARFOX	Tropospheric Aerosol Radiative Forcing Observational Experiment
TBFRA	Temperate and Boreal Forest Resource Assessment
TBO	Tropospheric Biennial Oscillation
TCR	Transient Climate Response
TEM	Terrestrial Ecosystem Model
TEMPUS	Sea Surface Temperature Evolution Mapping Project based on Alkenone Stratigraphy
THC	Thermohaline Circulation
TMR	TOPEX Microwave Radiometer
TOA	Top of the Atmosphere
TOMS	Total Ozone Mapping Spectrometer
TOPEX/POSEIDON	US/French Ocean Topography Satellite Altimeter Experiment
TOVS	Television Infrared Observation Satellite Operational Vertical Sounder
TPI	Trans Polar Index
TRIFFID	Top-down Representation of Interactive Foliage and Flora Including Dynamics
TSI	Total Solar Irradiance
UARS	Upper Atmosphere Research Satellite
UCAM	University of Cambridge (UK)
UCI	University of California at Irvine (USA)
UD/EB	Upwelling Diffusion-Energy Balance
UEA	University of East Anglia (UK)
UGAMP	University Global Atmospheric Modelling Project
UIO	Universitetet I Oslo (Norway)
UIUC	University of Illinois at Urbana-Champaign (USA)
UKHI	United Kingdom High-resolution climate model
UKMO	United Kingdom Met Office (UK)
UKTR	United Kingdom Transient climate experiment
ULAQ	Università degli studi dell'Aquila (Italy)
UM	Unified Model
UNEP	United Nations Environment Programme
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
USSR	Union of Soviet Socialist Republics
UTH	Upper Tropospheric Humidity
UV	Ultraviolet radiation
UVic	University of Victoria (Canada)
VIRGO	Variability of Solar Irradiance and Gravity Oscillations
VLM	Vertical Land Movement

VOC	Volatile Organic Compounds
WAIS	West Antarctic Ice Sheet
WASA	Waves and Storms in the North Atlantic
WAVAS	Water Vapour Assessment
WBCs	Western Boundary Currents
WCRP	World Climate Research Programme
WMGGs	Well-Mixed Greenhouse Gases
WMO	World Meteorological Organization
WOCE	World Ocean Circulation Experiment
WP	Western Pacific
WRE	Wigley, Richels and Edmonds
YONU	Yonsei University (Korea)

