

# STATE OF THE CLIMATE IN 2010

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- Moored ocean data is distributed by NOAA/PMEL at <http://www.pmel.noaa.gov/tao>;
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- Analyses of altimetry-derived surface currents are available at <http://www.aoml.noaa.gov/phod/altimetry/cvar>;
- Atlantic Meridional Overturning Circulation estimates from the Rapid-MOC/MOCHA/WBTS program are available at [http://www.noc.soton.ac.uk/rapidmoc/rapid\\_data/rapid\\_transports.html](http://www.noc.soton.ac.uk/rapidmoc/rapid_data/rapid_transports.html);
- The Florida Current Transport time series is avail-

able through the NOAA Western Boundary Time Series Program at [http://www.aoml.noaa.gov/phod/floridacurrent/data\\_access.php](http://www.aoml.noaa.gov/phod/floridacurrent/data_access.php);

- U.S. CLIVAR/CO<sub>2</sub> Repeat Hydrography Program at <http://ushydro.ucsd.edu/>;
- NOAA Hurricane classification at [http://www.cpc.noaa.gov/products/outlooks/background\\_information.shtml](http://www.cpc.noaa.gov/products/outlooks/background_information.shtml);
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**Image Credits:** Front: Whistler, British Columbia, February 2010 (AP Photo/Ricardo Mazalan). North America map: Figure 7.5 in report. Back: Capitol Building in Washington, D.C., February 2010. ©iStock-Photos.com/DaveNewman

## APPENDIX: ACRONYMS AND ABBREVIATIONS

AAO	Antarctic Oscillation
ACE	NOAA's Accumulated Cyclone Energy Index
AGGI	NOAA's Annual Greenhouse Gas Index
AMO	Atlantic Multidecadal Oscillation
AMSR-E	Advanced Microwave Scanning Radiometer for Earth Observing System
AMSU	Advanced Microwave Sounding Unit
AO	Arctic Oscillation
AOD	Aerosol optical depth
AOML	Atlantic Oceanographic and Meteorological Laboratory
AVHRR	Advanced Very High Resolution Radiometer
AVISO	Archiving, Validating, and Interpretation of Satellite Oceanographic data
CAMS	Climate Anomaly Monitoring System
CERES	Clouds and the Earth's Radiant Energy System
CIIFEN	International Research Center on El Niño
CLIVAR	Climate Variability and Predictability
CNES	Centre National d'Etudes Spatiales
CPC	Climate Prediction Center
CPHC	NOAA's Central Pacific Hurricane Center
CRU	Climate Research Unit
DU	Dobson units
ECMWF	European Centre for Medium-Range Weather Forecasts
ECV	Essential climate variable
EECI	Effective equivalent chlorine
EESC	Effective equivalent stratospheric chlorine
ENSO	El Niño–Southern Oscillation
EOF	Empirical orthogonal function
EOS	Earth Observatory System
ERB	Earth radiation budget
ERBE	Earth Radiation Budget Experiment
ERSST, v3b	Extended Reconstructed Sea Surface Temperature, version 3b
ESA	European Space Agency

ESRL	Earth System Research Laboratory	MOC	Meridional overturning current
EU	European Union	MOCHA	Meridional Overturning
FAO	Food and Agriculture Organization		Circulation Heat Transport Array
FAPAR	Fraction of Absorbed Photosynthetically Active Radiation	MODIS	Moderate Resolution Imaging Spectroradiometer
FLASHflux	Fast Longwave and Shortwave Radiative Fluxes	MSLP	mean sea level pressure
GCOS	Global Climate Observing System	MSU	Microwave Sounding Unit
GHCN	Global Historical Climatology Network	NAM	Northern annular mode
GISS	NASA's Goddard Institute of Space Studies	NAO	North Atlantic Oscillation
GOME	Global Ozone Monitoring Experiment	NASA	National Aeronautics and Space Administration
GPCC	Global Precipitation Climatology Centre	NCAR	National Center for Atmospheric Research
GPCP	Global Precipitation Climatology Project	NCDC	National Climatic Data Center
GPI	Genesis potential index	NCEP	National Center for Environmental Prediction
GRACE	Gravity Recovery and Climate Experiment	NDVI	Normalized Difference Vegetation Index
HadAT	Hadley Centre's radiosonde temperature product	NERC	National Environmental Research Council
HadCRUT3	Hadley Centre/CRU gridded monthly temperatures dataset	NH	Northern Hemisphere
HadGEM1	Hadley Centre global model	NHC	National Hurricane Center
HIRS-W	High Resolution Infrared Sounder	NIO	Northern Indian Ocean
hPa	Hectopascal (1 mb)	NOAA	National Oceanic and Atmospheric Administration
ICPAC	IGAD Climate Prediction and Applications Centre	NOMADS	National Operational Model Archive and Distribution System
IO	Indian Ocean	NS	Named storm
IOD	Indian Ocean dipole	NSIDC	National Snow and Ice Data Center
IPCC	Intergovernmental Panel on Climate Change	NWS	National Weather Service
ISCCP	International Satellite Cloud Climatology Project	OAFlex	Objectively Analyzed Air–Sea Fluxes
ITCZ	Intertropical convergence zone	ODGI	Ozone Depleting Gas Index
JGOFS	Joint Global Ocean Flux Study	OHCA	Ocean heat content anomaly
JMA	Japanese Meteorological Agency	OISST v2	Optimal Interpolation SST version 2
JPL	Jet Propulsion Laboratory	OLR	Outgoing longwave radiation
JRA	Japanese Reanalysis	OMI	Ozone Monitoring Instrument
JTWC	U.S. Navy's Joint Typhoon Warning Center	ONI	Oceanic Niño Index
LHF	Latent heat flux	OPI	OLR precipitation index
MDR	Main Development Region	OSCAR	Ocean Surface Current Analysis– Real Time
MERIS	Medium Resolution Imaging Spectrometer	PATMOS (-x)	Pathfinder Atmospheres (Extended Product)
MISR	Multiangle Imaging SpectroRadiometer	pCO <sub>2</sub>	Carbon dioxide partial pressure
MJO	Madden–Julian oscillation	PDO	Pacific decadal oscillation
MLS	Microwave Limb Sounder	PIRATA	Pilot Research Array in the Tropical Atlantic
		PMEL	Pacific Marine Environmental Laboratory
		ppb	Parts per billion

ppm	Parts per million	w.e.	water equivalent
ppmv	Parts per million by volume	WGMS	World Glacier Monitoring Service
ppt	Parts per trillion	WHOI	Woods Hole Oceanographic Institute
PSS	Practical salinity scale		
QBO	Quasi-biennial oscillation	WMO	World Meteorological Organization
QuikSCAT	Quick Scatterometer		
RAMA	Research Moored Array for African-Asian-Australian Monsoon Analysis Prediction	WOA	<i>World Ocean Atlas</i>
		WOCE	World Ocean Circulation Experiment
RAOBCORE	Radiosonde Observation Correction	XBT	Expendable bathythermograph
RATPAC	Radiosonde Atmospheric Temperature Products for Assessing Climate		
RICH	Radiosonde Innovation Composite Homogenization		
RSS	Remote Sensing Systems		
SAM	Southern annular mode		
SBUV	Solar Backscatter Ultraviolet		
SCD	snow covered duration		
SCE	snow cover extent		
SCIAMACHY	Scanning Imaging Absorption Spectrometer for Atmospheric Chartography		
SeaWiFS	Sea-viewing Wide Field of View		
SH	Southern Hemisphere		
SHF	Sensible heat flux		
SIO	Southern Indian Ocean		
SLP	Sea level pressure		
SOI	Southern Oscillation index		
SPCZ	South Pacific convergence zone		
SSALTO/DUACS	Segment Sol Multimission Altimetry and Orbitography/Developing Use of Altimetry for Climate Studies		
SSM/I	Special Sensor Microwave Imager		
SSS	Sea surface salinity		
SST	Sea surface temperature		
SSTA	Sea surface temperature anomaly		
Sv	Sverdrup (1 Sv = 10 <sup>6</sup> m <sup>3</sup> s <sup>-1</sup> )		
TAO	Tropical Atmosphere Ocean		
TC	Tropical cyclone		
TCHP	Tropical cyclone heat potential		
TCWV	Total column water vapor		
TMI	Tropical Rainfall Measuring Mission Microwave Imager		
TOA	Top of atmosphere		
TOMS	Total Ozone Mapping Spectrometer		
TRITON	Triangle Trans-Ocean Buoy Network		
TRMM	Tropical Rainfall Measuring Mission		
WBC	Western boundary current		

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