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APPENDIX: ACRONYMS

A	Anticyclonic days
ACC	Antarctic Circumpolar Current
ACE	NOAA's Accumulated Cyclone Energy Index
AEJ	African Easterly Jet
AGCM	Atmospheric general circulation model
AGGI	NOAA's Annual Greenhouse Gas Index
AMIP	Atmospheric Model Intercomparison Project
ALT	Active layer thickness
AMM	Atlantic Multidecadal Mode
AMO	Atlantic Multidecadal Oscillation
AMSR-E	Advanced Microwave Scanning Radiometer for Earth Observing System
AMSU	Advanced Microwave Sounding Unit
ANEEL	Agência Nacional de Energia Eléctrica
AO	Arctic Oscillation
AOD	Aerosol optical depth
AOML	Atlantic Oceanographic and Meteorological Laboratory
ASO	August–September–October
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
ATLAS	Autonomous Temperature Line Acquisition System
AVHRR	Advanced Very High Resolution Radiometer
AVISO	Archiving, Validating, and Interpretation of Satellite Oceanographic data
AW	Atlantic Water

AWS	Automatic weather station	COARE	Coupled Ocean–Atmosphere
BC	British Columbia		Response Experiment
BGOS	Beaufort Gyre Observing System	CPC	Climate Prediction Center
BI	Balleny Islands	CPHC	NOAA's Central Pacific Hurricane Center
Br	Bromine		
C	Cyclonic days	CPTEC	Center for Weather Forecasting and Climate Studies
CALIPSO	Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation	CRU	Climate Research Unit
CAMS	Climate Anomaly Monitoring System	CSI	NOAA Climate Scene Investigation
CCM3	NCAR Community Climate Model version 3	CW	Cyclonic westerly days
CDAS	Climate Data Assimilation System	CYC	Cyclone
cDOM	Colored dissolved organic matter	D1	Moderate drought
CE	Cyclonic easterly days	DIC	Dissolved inorganic carbon
CEMIG/SIMGE/ MG	Companhia Energética de Minas Gerais	DISC	Data and Information Services Center
CET	Central England Temperature	DJF	December–January–February
CFC	Chlorofluorocarbon	DJFM	December–January–February–March
CFC-11	Trichlorofluoromethane	DM	Drift-Age Model
CFC-12	Dichlorodifluoromethane	DOE	Department of Energy
CH ₄	Methane	DT-MSLA	Delayed Time-Merged Sea Level Anomaly
Chlsat	Surface-layer chlorophyll concentration	DU	Dobson units
CIIFEN	International Research Center on El Niño	DWBC	Deep western boundary current
CIMSS	University of Wisconsin—Madison Cooperative Institute for Meteorological Satellite Studies	DWD	Deutscher Wetterdienst
CIRES	Cooperative Institute for Research in Environmental Sciences	EASE	Equal-Area Scalable Earth
Cl	Chlorine	ECl	Equivalent chlorine
CLIVAR	Climate Variability and Predictability	EESC	European Centre for Medium-Range Weather Forecasts
CLO	Chlorine monoxide	EECl	Effective equivalent chlorine
ClONO ₂	Chlorine nitrate	EKE	Effective equivalent stratospheric chlorine
CLS	Collecte Localisation Satellites	EMPARN	Enhanced Fujita
CMA	China Meteorology Administration	ENACT	Eddy kinetic energy
CMCD/INPE	Data Collection Mission Center/ National Institute for Space Research	ENP	Empresa de Pesquisa Agropecuária do Rio Grande do Norte
CMIP	Coupled Model Intercomparison Project	ENSO	Enhanced ocean data assimilation and climate prediction
CMRH/SE	Centro Estadual de Meteorologia e dos Recursos Hídricos/ Superintendência de Recursos Hídricos de Sergipe	EOF	Eastern North Pacific (basin)
CNES	Centre National d'Etudes Spatiales	EPAC	El Niño–Southern Oscillation
CNMI	Commonwealth of the Northern Mariana Islands	EPOGA	Empirical orthogonal function
CNW	Cyclonic north-westerly days	ESRL	East Pacific
CO	Carbon monoxide	ET	East Pacific Ocean–Global Atmosphere
CO ₂	Carbon dioxide	ETC	Earth System Research Laboratory
		EU	Equatorial trough
		EWG	Extratropical cyclone
		FUNCeme/CE	European Union
		GC	Environmental Working Group
			Fundação Cearense de Meteorologia e Recursos Hídricos/ Estado do Ceará
			Gas chromatograph

GCM	General circulation model	IPCC AR4	IPCC Fourth Assessment report (published in 2007)
GCOS	Global Climate Observing System	IPCC FAR	IPCC First Assessment Report (published in 1996)
GEOSECS	Geochemical Ocean Section Study		
GES	Goddard Earth Sciences		
GFDL AM2.1	Geophysical Fluid Dynamics Laboratory Atmosphere Model version 2.1	IPY IR IRI	International Polar Year Infrared International Research Institute for Climate and Society
GFS	NCEP Global Forecast System	IRIMO	Islamic Republic of Iran
GHA	Greater Horn of Africa		Meteorological Organization
GHCN	Global Historical Climatology Network	ITCZ	Intertropical convergence zone
GHG	Greenhouse gas	ITEP/LAMEPE/	Instituto Tecnológico de Pernambuco/Laboratório de Meteorologia de Pernambuco
GIA	Glacial isostatic adjustment	PE	Japan Agency for Marine–Earth Science and Technology
GISS	NASA's Goddard Institute of Space Studies	JAMSTEC	July–August–September
GLOSS	Global Sea Level Observing System		July–August–September–October
GMD	Global Monitoring Division	JAS	JAMSTEC Compact Arctic Drifter
GOGA	Global Ocean–Global Atmosphere	JASO	Joint Global Ocean Flux Study
GOM	Gulf of Mexico	J-CAD	June–July–August
GPCC	Global Precipitation Climatology Centre	JGOFS	Japanese Meteorological Agency
GPI	Genesis potential index	JJA	Jet Propulsion Laboratory
GRACE	Gravity Recovery and Climate Experiment	JMA	U.S. Navy's Joint Typhoon Warning Center
GSM	Garver–Siegel–Maritorena	JPL	Royal Netherlands Meteorological Institute
H	Hurricane	JTWC	Langley Research Center
HadAT2	Hadley Centre gridded free-atmosphere temperatures from radiosondes dataset	KNMI	Latent heat flux
HadCRUT3	Hadley Centre/CRU gridded monthly temperatures dataset	LaRC	Low-level jet
HCFC	Hydrochlorofluorocarbon	LHF	Laboratório de Meteorologia, Recursos/Remoto da Paraíba
HCl	Hydrogen chloride	LLJ	Lower stratosphere
HFC	Hydrofluorocarbon	LMRS/PB	Lower troposphere
HOTS	Hawaiian Ocean Time Series	LT	Long-term mean
hPa	Hectopascal (1 mb)	LTM	March–April–May
HTC	Hurricanes/typhoons/cyclones	MAM	Mesoscale convective complex
HURDAT	Atlantic Hurricane Database	MCC	Major cyclone
ICESat	Ice, Cloud, and Land Elevation Satellite	MCYC	Main Development Region
IGRA	Integrated Global Radiosonde Archive	MDR	Multivariate ENSO Index
INMET	Instituto Nacional de Meteorologia	MEI	Major hurricane
INPO	International Network of Permafrost Observatories	MH	Madden–Julian oscillation
IO	Indian Ocean	MJO	Mauna Loa Observatory
IOCCG	International Ocean Colour Coordinating Group	MLO	Microwave Limb Sounder
IOD	Indian Ocean dipole	MLS	Fifth-generation Pennsylvania State University–National Center for Atmospheric Research Mesoscale Model
IOP	Intensive observing period	MM5	Meridional overturning current
IPCC	Intergovernmental Panel on Climate Change	MOC	Meridional Overturning Circulation Heat Transport Array
		MOCHA	Moderate Resolution Imaging Spectroradiometer
		MODIS	

MPI	Maximum potential intensity	OAFlux	Objectively Analyzed Air–Sea Fluxes
MSU	Microwave Sounding Unit	OBPG	Ocean Biology Processing Group
MT	Midtroposphere	ODGI	Ozone Depleting Gas Index
MTC	Major tropical cyclone	ODS	Ozone-depleting substance
N ₂ O	Nitrous oxide	OH	Hydroxide anion
NAMHEM	National Agency for Meteorology, Hydrology and Environmental Monitoring	OHCA	Ocean Heat Content Anomaly
		OI	Optimal interpolation
NAM	Northern annular mode	OLR	Outgoing longwave radiation
NAO	North Atlantic Oscillation	OMI	Ozone Monitoring Instrument
NARR	North American Regional Reanalysis	ONI	Oceanic Niño Index
		OPI	OLR precipitation index
NASA	National Aeronautics and Space Administration	PATMOS (-x)	Pathfinder Atmospheres (Extended Product)
NBC	North Brazil Current	pCO ₂	Carbon dioxide partial pressure
NCAR	National Center for Atmospheric Research	PDF	Probability distribution function
NCDC	National Climatic Data Center	PDO	Pacific decadal oscillation
NCEP	National Center for Environmental Prediction	PDSI	Palmer Drought Severity Index
NDVI	Normalized difference vegetation index	Pg	Petagram (10 ¹⁵ g)
		pIOD	Positive phase of the IOD
		PIRATA	Pilot Research Array in the Tropical Atlantic
NEC	North Equatorial Current	PMEL	Pacific Marine Environmental Laboratory
NECC	North Equatorial Countercurrent		
NEM	Northeast monsoon	PNA	Pacific–North American pattern
NERC	National Environmental Research Council	ppb	Parts per billion
		ppbv	Parts per billion by volume
NESIS	Northeast Snowfall Impact Scale	ppm	Parts per million
NH	Northern Hemisphere	ppt	Parts per trillion
NHC	National Hurricane Center	PSC	Polar stratospheric cloud
NIFC	National Interagency Fire Center	PSS	Practical salinity scale
NIND	North Indian	psu	Practical salinity unit
NIO	Northern Indian Ocean	QBO	Quasi-biennial oscillation
NIWA	National Institute of Water and Atmospheric Research	QuikSCAT	Quick Scatterometer
NN2	NOAA/NWS/NCEP/DOE Reanalysis II	QSCAT	QuikSCAT satellite
		RAOBCORE	Radiosonde Observation Correction
NO	Nitric oxide	RATPAC	Radiosonde Atmospheric Temperature Products for Assessing Climate
NOAA	National Oceanic and Atmospheric Administration	RMB	Renminbi
NOMADS	National Operational Model Archive and Distribution System	RPCA	Rotated principal component analysis
NP	North Pole	RSL	Relative sea level
NPEO	North Pole Environmental Observatory	RSMC	Regional Specialized Meteorological Center Tokyo
NPP	Net primary production	RSS	Remote Sensing Systems
NS	Named storm	SACZ	South Atlantic convergence zone
NSIDC	National Snow and Ice Data Center	SAM	Southern annular mode
NSW	New South Wales, Australia	SAT	surface air temperature
NW	North-westerly days	SCA	Snow-covered area
NWS	National Weather Service	SCE	Snow cover extent
O ₃	Ozone	SCS	South China Sea

SEAAB/PI	Secretaria do Agricultura, Abastecimento e Irrigacao of the Government of Piauí	TOMS	Total Ozone Mapping Spectrometer
SEAG/ES	Secretaria de Agricultura do Estado do Espírito Santo	TRMM	Tropical Rainfall Measuring Mission
SeaWiFS	Sea-viewing Wide Field of View	TS	Tropical storm
SEC	South Equatorial Current	TSP	Thermal state of permafrost
SEIND	Southeast Indian	TMI	Tropical Rainfall Measuring Mission Microwave Imager
SENAMHI	Bolivian Meteorological Service	TY	Typhoon
ΣChl	Photic zone chlorophyll	UAH	University of Alabama Huntsville
SF ₆	Sulfur hexafluoride	UKMO	Met Office
SH	Southern Hemisphere	UMD	University of Maryland
SHF	Sensible heat flux	USDA	U.S. Department of Agriculture
SIO	Southern Indian Ocean	W	Westerly days
SITCZ	Southern intertropical convergence zone	WBC	Western boundary current
SL	Sea level	WHOI	Woods Hole Oceanographic Institute
LA	Sea level anomaly	WMO	World Meteorological Organization
SLE	Sea level equivalent	WOA	<i>World Ocean Atlas</i>
SLP	Sea level pressure	WOCE	World Ocean Circulation Experiment
SMD	Surface melt duration	WP	west Pacific (teleconnection pattern)
SMMR	Scanning Multichannel Microwave Radiometer	WPAC	West Pacific
SMN	Mexico's National Meteorological Service	WPO	west Pacific Ocean
SON	September–October–November	XBT	Expendable bathythermograph
SOI	Southern Oscillation index		
SPA	South Pacific anticyclone		
SPAC	South Pacific		
SPCZ	South Pacific convergence zone		
SPI	Standardized Precipitation Index		
SRH/BA	Superintendência de Recursos Hídricos da Bahia		
SSA	Southern South America		
SSM/I	Special Sensor Microwave Imager		
SSS	Sea surface salinity		
SST	Sea surface temperature		
SSTA	Sea surface temperature anomaly		
STY	Supertyphoon		
SUDENE	Superintendência do Desenvolvimento do Nordeste		
Sv	Sverdrups ($1 \text{ Sv} \equiv 10^6 \text{ m}^3 \text{ s}^{-1}$)		
SWI	Summer warmth index		
SWIND	Southwest Indian		
SWJ	Subtropical westerly jet		
SWP	Southwest Pacific		
TATL	Tropical Atlantic		
TC	Tropical cyclone		
TCHP	Tropical cyclone heat potential		
TD	Tropical depression		
TEJ	Tropical easterly jet		
TM	Tropical Rainfall Measuring Mission Microwave Imager		

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