

## L. Acronyms

3DVAR	3-Dimensional Variational Assimilation
4DVAR	4-Dimensional Variational Assimilation
ADE	AWIPS II Development Environment
AERONET	Aerosol Robotic Network
AFB	Air Force Base
AFWA	Air Force Weather Agency
AFWS	Automated Flood Warning Systems
AGL	Above Ground Level (height above ground)
AGU	American Geophysical Union
ALPS	Advanced Linux Prototype System
AMB	Assimilation and Modeling Branch (effective 10/1/2014, Earth Modeling Branch)
AMDAR	Aircraft Meteorological Data Report(s)
AMS	American Meteorological Society
AMSU	Advanced Microwave Sounding Unit
AMV	Atmospheric Motion Vectors
AOD	Aerosol Optical Depth
AOML	Atlantic Oceanographic and Meteorological Laboratory
AQ	Air Quality
AR	Atmospheric River
ARL	Air Resources Laboratory
ARM	Atmospheric Radiation Measurement - Dept. of Energy research program
ARW	Advanced Research WRF (dynamic core option in WRF)
ARTCC	Air Route Traffic Control Center
ASDI	Aircraft Situation Display to Industry (source of air traffic information, for INSITE)
ASTC	Association of Science-Technology Centers (collaborators with Science on a Sphere)
ATO	Advanced Technology and Outreach (Branch)
AWC	Aviation Weather Center (an NCEP center)
AWIPS	Advanced Weather Interactive Processing System
AWIPS-II	Advanced Weather Interactive Processing System (next generation deployed 2015)
AWT	Aviation Weather Testbed
BL	Boundary Layer
CAVE	Common AWIPS Visualization Environment
CBVT	CWSU Briefing and Verification Tool
CCFP	Collaborative Decision Making (CDM) Convective Forecast Planning
CCPP	Collaborative Convective Probabilistic Prediction
CFS	Climate Forecast System (NCEP model)
CICE	Community ICE model (developed largely at Los Alamos Natl. Laboratory)
CIRA	Cooperative Institute for Research in the Atmosphere (CIRA at Colorado State Univ.)
CIRES	Cooperative Institute for Research in Environmental Sciences (CIRES at Univ. of CO)
CIWS	Corridor Integrated Weather System
CLARUS	Road weather observations database at the Federal Highways Administration
CONUS	Contiguous United States
COSMIC	Constellation Observing System for Meteorology, Ionosphere, and Climate

CoSPA	Consolidated Storm Prediction for Aviation
CPC	Climate Prediction Center (an NCEP center)
CPU	Central Processing Unit
CRADA	Cooperative Research and Development Agreement
CSD	Chemical Sciences Division (ESRL)
CSU	Colorado State University
CTB	Climate Testbed
CU	University of Colorado
CWB	Central Weather Bureau of Taiwan
CWSU	Center Weather Service Unit (NWS forecaster units at ARTCCs)
DA	Data assimilation
DMIT	NOAA Data Management Integration Team
DOC	Department of Commerce
DOE	Department of Energy
DOH	Development and Operations Hydrologist (in NWS)
DOT	Department of Transportation
DSS	Decision Support System
DTC	Developmental Testbed Center
Dycore	Dynamic core (for atmospheric model)
EC	Environment Canada
ECMWF	European Centre for Medium-Range Weather Forecasts
EDEX	Environmental Data Exchange
EDM	NOAA Environmental Data Management Committee
EDS	Evaluation and Decision Support Branch
EGU	European Geosciences Union
EMB	Earth Modeling Branch (formerly AMB)
EnKF	Ensemble Kalman filter
EnKF/4DVAR	Ensemble Kalman filter / four-dimensional variational
ENSO	El Niño Southern Oscillation
ESM	Earth System Model
ESMF	Earth System Modeling Framework
ESPC	Earth System Prediction Capability
ESRL	Earth System Research Laboratory (GSD is a division in ESRL)
EVENT	Event-Based Verification and Evaluation of NWS Gridded Products Tool
FAA	Federal Aviation Administration/U.S. Department of Transportation
FAB	Forecast Applications Branch (Effective 10/1/2014, merged into EMB)
FACETs	Forecasting a Continuum of Environmental Threats
FAR	False Alarm Ratio
FDSE	Forecaster Decision Support Environment
FFaIR	Flash Flood and Intense Rainfall (testbed)
FFMP	Flash Flood Monitoring and Prediction
FHWA	Federal Highways Administration/U.S. Department of Transportation
FIM	Flow-following finite-volume Icosahedral Model (experimental global model)
FL	Flight Level (e.g., FL350 for level at 35,000 feet)
FPGA	Field-Programmable Gate Array
FV	Finite Volume (numerical method)

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FV3	GFDL global model (cubed-sphere grid)
FX-Net	Forecasting in an X-Windows environment using the Internet (AWIPS-I based)
GCM	Global Climate Model
GEFS	Global Ensemble Forecast System
GEOS	Global Earth Observation System of Systems
GF/GFO	Grell-Freitas (convective scheme, or Grell-Freitas-Olson version)
GFDL	Geophysical Fluid Dynamics Laboratory
GFE	Graphical Forecast Editor
GFS	NCEP Global Forecast System model (currently the Global Spectral Model)
GHG	Graphical Hazard Generator
GHI	Global Horizontal Irradiance
GMAO	NASA Goddard Modeling and Assimilation Office
GMD	Global Monitoring Division (within ESRL)
GMTB	Global Modeling Test Bed (program within DTC associated with NGGPS)
GNSS	Global Navigation Satellite Systems
GOCART	Goddard Chemistry Aerosol Radiation and Transport model
GOES	Geostationary Operational Environmental Satellite
GOSA	Global Observing Systems Analysis (GSD/Office of the Director)
GPM	Global Precipitation Measurement
GPRA	Government Performance and Results Act
GPS-IPW	Global Positioning System-Integrated Precipitable Water
GPS-Met	Global Positioning System Meteorology system
GPU	Graphics Processing Unit
GSD	Global Systems Division (NOAA/OAR/ESRL/GSD)
GSI	Gridpoint Statistical Interpolation data assimilation system
GSM	Global Spectral Model (to be replaced by NGGPS model in future)
GTAS	Geo-Targeted Alerting System
GTG	Graphical Turbulence Guidance
GUI	Graphical User Interface
HADS	Hydrometeorological Automated Data System
HCST	Hindcast
HCPF	HRRR Convective Probability Forecast
HFIP	Hurricane Forecast Improvement Program
HIWPP	High-Impact Weather Prediction Project (Sandy Supplemental funded project)
HLS	Hurricane Local Statement
HMT	Hydrometeorological Testbed
HPC	Hydrometeorological Prediction Center (within NCEP)
HPCS	High-Performance Computing System
HRRR	High-Resolution Rapid Refresh model
HRRRE	High-Resolution Rapid Refresh Ensemble
HWRF	Hurricane Weather Research and Forecasting model
HWT	Hazardous Weather Testbed
HYCOM	HYbrid Coordinate Ocean Model (community ocean model)
IDSS	Impact-based Decision Support Services
iHYCOM	Icosahedral-horizontal-coordinate version of HYCOM ocean model
IMET	Incident Meteorologist (NWS)

INSITE	Integrated Support for Impacted Air-Traffic Environments
ISO	International Organization for Standardization
JCSDA	Joint Center for Satellite Data Assimilation
JPSS	Joint Polar Satellite System Proving Ground
JTWC	Joint Typhoon Warning Center
LAMP	Localized Aviation MOS Program
LAPS	Local Analysis and Prediction System
LES	Large-Eddy Simulation
LLWS	Low-Level Wind Shear
LSM	Land-Surface Model (parameterization)
LTG	Lightning
MADIS	Meteorological Assimilation Data Ingest System
METAR	Aviation Routine Weather Report (translation from French)
MDL	Meteorological Development Laboratory (within NWS)
MIC	Intel® Many Integrated Core (HPCS architecture)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPAS	Model for Prediction across Scales (NCAR global model)
MPFG	Massively Parallel Fine Grain (computing)
MPI	Message Passing Interface -- HPC standard for distributed memory programming
MPP	Massively Parallel Processor
MRMS	Multi-Radar/Multi-Sensor (national radar data merger system)
MYNN	Mellor–Yamada–Nakanishi–Nino (boundary-layer parameterization)
NARRE	North American Rapid Refresh Ensemble (with RAP and NAM members)
NCAR	National Center for Atmospheric Research
NCEI	NOAA National Centers for Environmental Information (part of NESDIS)
NEIS	NOAA Earth Information System™
NCEP	National Centers for Environmental Prediction
NDFD	National Digital Forecast Database
NEMS	NOAA Environmental Modeling System
NESDIS	National Environmental Satellite, Data & Information Services
NEXRAD	NEXt generation RADar
NextGen	Next-Generation Air Transportation System
NGGPS	Next-Generation Global Prediction System
NHC	National Hurricane Center (an NCEP center)
NIM	Non-hydrostatic Icosahedral Model (global model developed in GSD)
NITE	NWP Information Technology Environment
NMM	Non-hydrostatic Mesoscale Model
NMMB	Non-hydrostatic Multiscale Model on the B-grid
NMME	North-American Multi-Model Ensemble (intraseasonal to interannual coupled models, eg FIM-iHYCOM)
Noah LSM	Noah land-surface model (used widely in WRF and many NCEP models)
Noah-MP LSM	Noah multi-parameterization land surface model
NPOESS	NOAA Polar-Orbiting Environmental Satellite System
NPP	NPOESS Preparatory Project
NRL	Naval Research Laboratory

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NSSL	National Severe Storm Laboratory
NTSB	National Transportation Safety Board
NUOPC	National Unified Operational Prediction Capability (NOAA / DOD)
NWC	National Water Center (NWS)
NWP	Numerical Weather Prediction
NWS	National Weather Service (NOAA)
O2R	Operations to Research
OAR	Oceanic and Atmospheric Research (NOAA's research organization)
OGC	Open Geospatial Consortium
OpenACC	Emerging standard for directive-based programming of multicore, many-core, and GPU architectures
OpenMP	Industry standard for shared-memory directive-based programming
OSSE	Observing System Simulation Experiment
OSE	Observing System Experiment or Observation Sensitivity Experiment
PBL	Planetary Boundary Layer
PHDT	Probabilistic Hazard Detection Tool (uses time-lagged HRRR)
PHPT	Probabilistic Hazard Prediction Tool
PM2.5	Particulate Matter – <2.5 microns
PMM	Precipitation Measurement Mission
PSD	Physical Sciences Division (within ESRL)
PW	Precipitable Water
QOSAP	Quantitative Observing System Assessment Program
QPE	Quantitative Precipitation Estimation
R2A	Research to Applications
R2O	Research to Operations
RAP	Rapid Refresh model
RMSE	Root-Mean-Square Error
RTVS	Real-time Verification System
RO	Radio Occultation
RSA	Range Standardization and Automation program at U.S. Space Centers
RUA	Rapid Updating Analysis
RUC	Rapid Update Cycle model
RUC LSM	RUC Land-Surface Model
SBN	Satellite Broadcast Network (AWIPS)
SSD	Science and Technology Services Divisions (NWS)
SHOUT	Sensing Hazards with Operational Unmanned Technology
SFIP	Solar Forecast Improvement Project
SM	Statue Mile
SMS	Scalable Modeling System
SOO	Science and Operations Officer (in NWS)
SOS	Science On a Sphere®
SOSX	SOS Explorer™
SPC	Storm Prediction Center (within NCEP)
SST	Sea-Surface temperature
SVN	Subversion, a version control system
S2S	Subseasonal to seasonal (global model applications, usually atmos-ocean coupled)

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TCV	Tropical Cyclone Valid Time Event Code product
TMU	Traffic Management Unit (Aviation)
TPW	Total Precipitable Water
TRACON	Terminal Radar Approach CONTROL
TRMM	Tropical Rainfall Measuring Mission
TWPCFC	Taiwan-West Pacific Climate Forecast System
UAS	Unmanned Aircraft System
UH	Updraft Helicity
USAF	U.S. Air Force
VACT	Volcanic Ash Coordination Tool
VRMC	Verification Requirements Monitoring Capability
VIIRS	Visible Infrared Imaging Radiometer Suite
WAM	Whole Atmosphere Model
WCRP	World Climate Research Program
WCS	OGC Web Coverage Service
WFIP	Wind Forecast Improvement Project (1 and 2)
WINS	Weather Integration and Nowcasting System (CWB's version of AWIPS)
WMS	OGC Web Map Service
WMTS	OGC Web Map Tile Service
WoF	Warn-On Forecast – OAR research project
WPC	Weather Prediction Center (an NCEP center)
WRF	Weather Research and Forecasting model (community model system)
WRF-Chem	Extended version of WRF model including inline chemistry (two-way interaction)
WWE	Winter Weather Experiment