



Alfredo Ruiz-Barradas



The Maryland State Climatologist Office



Resides

Department of Atmospheric and Oceanic Science
at the University of Maryland.

Established

In the 1980s and even earlier when
Helmut E. Landsberg helped create the
Department of Meteorology – our predecessor –
in the 1960s.

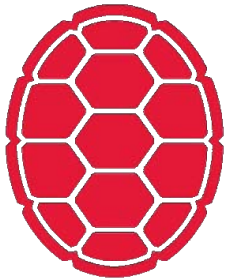
Previous State Climatologists:

- 1) W. Joseph Moyer: 1963 to 1973 (Maryland & Delaware)
1980 to 1988 (Maryland only)
- 2) Alan Robock: 1991 to 1997;
- 3) Kenneth E. Pickering: 1998 to 2005;
- 4) Konstantin Vinnikov: 2005 to 06/2021.

} Obituary in
The State Climatologist;
Summer/Fall 1997
[V21, no. 2 & 3](#)



The Maryland State Climatologist Office



**ATMOSPHERIC &
OCEANIC SCIENCE**

With the support of the Department's Chair, the MDSCO has been undergoing a renewal since 2021 with the goal of making this Office more visible across the State and central to all discussions of regional climate variability and change.

Mission:

- 1) Provide climate information and data services;
- 2) Develop analyses and products to educate Marylanders on current and emerging climate;
- 3) Place extreme events in a historical perspective;
- 4) Support the Maryland Mesonet Project.



The Maryland State Climatologist Office

The MDSCO is part of the American Association of State Climatologists, **AASC**



The **AASC** is part of the *National Climate Service Partners* which work with NOAA to effectively provide the nation with high-quality, timely, and relevant climate services.



U.S. Global Change Research Program



Northeast Regional Climate Center



The State Climatologist Offices that satisfy a series of requirements to improve climate services at the state level are Recognized State Climate Offices,

ARSCO, by the **AASC**



The Maryland State Climatologist Office

Traditionally, the MDSCO has provided climate information and data services.

Its mission is now framed within the
ARSCO requirements for an **AASC**-recognized Office:

- 1) information and data services,
- 2) monitoring and impact assessment,
- 3) research, and
- 4) outreach via awareness of weather and climate issues, education, and development of climate products.

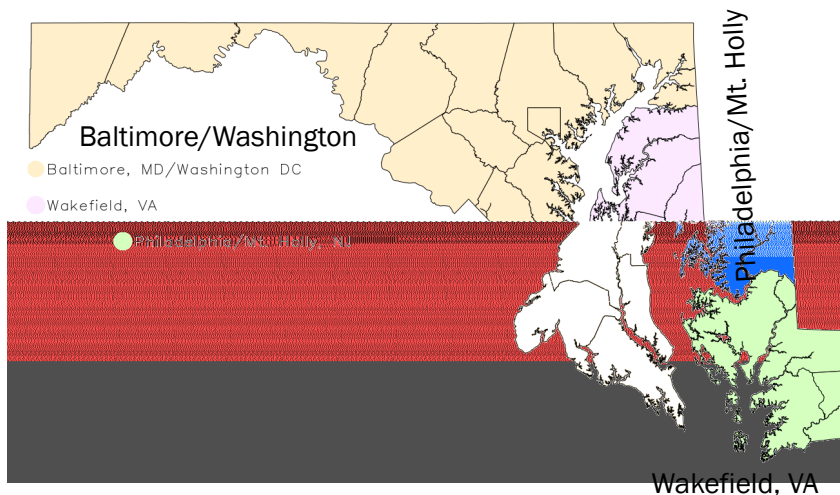


The Maryland State Climatologist Office

The Office is not alone.
It partners with Weather and Climate Services

Data & Monitoring

NWS Weather Forecast Offices

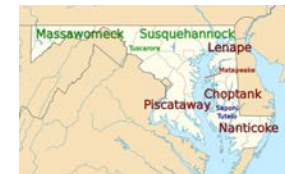


NCEI	-----	Data sets
NRCC	-----	T, Pr maps
NIDIS & USDroughtMonitor	-----	Drought
NOAA-NWS , CID , NDBC	-----	Flooding
USGS-WW , USGS-WDb , MGS	-----	Hydrology
AirNow , MDE	-----	Air Quality
Eyes on the Bay	-----	Water Properties
CPC Mon & Seas	-----	Climate Forecast
NOAA Weather	-----	Graphical Forecast
NOAA Marine	-----	Marine Obs & Forecast



The Maryland State Climatologist Office

- Healthy finances within the AOSC Department have allowed *momentary* funding for the MDSCO and the Climatologist.
- A great asset to the MDSCO:
 - A data server, *ahkee* (after the Nanticoke word for Earth), with two data disks of 18TB each:
 - *Luwan* (after the Lenape word for winter)
 - *Nipen* (after the Lenape word for summer).
...naming intended to honor the Tribes who lived and are still present in Maryland
- The *ahkee* data server has allowed downloading some data sets, particularly:
 - NCEI's nClimGrid and nClimDiv at monthly and daily resolutions
 - NASA's Earth Exchange Global Daily Downscaled Historical Simulations & SSP126, SSP585 Projections (NEX-GDDP-CMIP6).



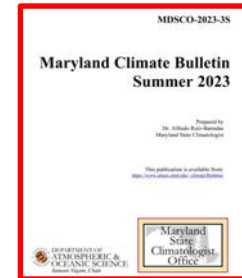
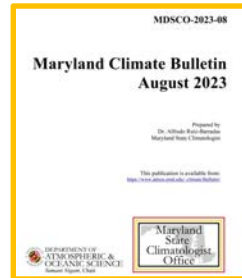
The Maryland State Climatologist Office

These data sets have allowed us to create:

Products

Maryland Climate Bulletin:

- Monthly
- Seasonal



<https://www.atmos.umd.edu/~climate/Bulletin>



The Maryland State Climatologist Office

The Bulletins have allowed us to do:

Outreach

- UMD
- Maryland Department of Emergency Management
- Maryland Department of the Environment
- Maryland Commission on Climate Change
 - The Scientific and Technical Working Group
- Harry R. Hughes Center for Agro-Ecology
- Farmers (*Plantation Park Heights Urban Farms*)
- Environmental Law Institute
- Maryland Association of Science Teachers



The Maryland State Climatologist Office

These data sets have allowed us to

do:

Research

- Under the Mesonet Project
 - Analysis of extreme daily precipitation (≥ 2 in) in the state to help guide the site selection of the first phase of installation of the mesonet towers.
- Under the Maryland Climate-Smart Ag Project
 - Calculation and analysis of agriculture-relevant indices under global warming scenarios through a multidisciplinary proposal sponsored by the Hughes Center of Agro-Ecology.



Thank you!

