



# Maryland State Climatologist Office

 DEPARTMENT OF  
ATMOSPHERIC &  
OCEANIC SCIENCE

# 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.

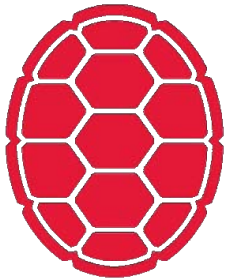
## Previous State Climatologists:

- 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.

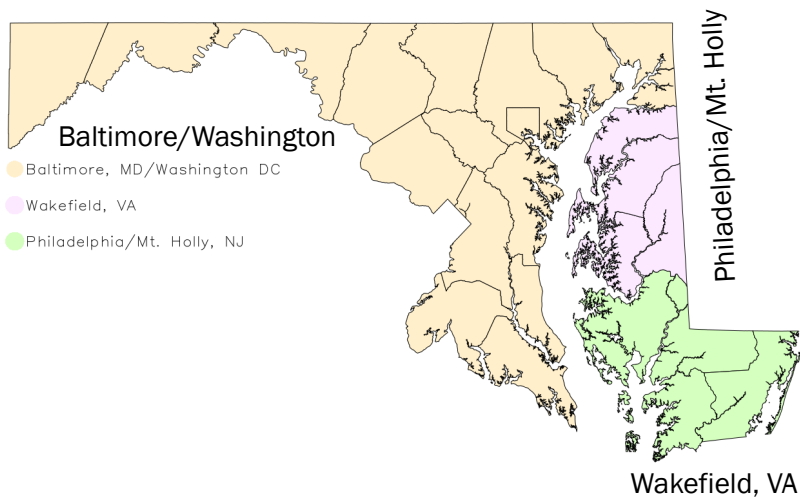


# The Maryland State Climatologist Office

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

## Data & Monitoring

### NWS Weather Forecast Offices



<a href="#">NCEI</a> -----	Data sets
<a href="#">NRCC</a> -----	T, Pr maps
<a href="#">NIDIS</a> & <a href="#">USDroughtMonitor</a> -----	Drought
<a href="#">NOAA-NWS</a> , <a href="#">CID</a> , <a href="#">NDBC</a> -----	Flooding
<a href="#">USGS-WW</a> , <a href="#">USGS-WDb</a> , <a href="#">MGS</a> -----	Hydrology
<a href="#">AirNow</a> , <a href="#">MDE</a> -----	Air Quality
<a href="#">Eyes on the Bay</a> -----	Water Properties
CPC <a href="#">Mon</a> & <a href="#">Seas</a> -----	Climate Forecast
<a href="#">NOAA Weather</a> -----	Graphical Forecast
<a href="#">NOAA Marine</a> -----	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).



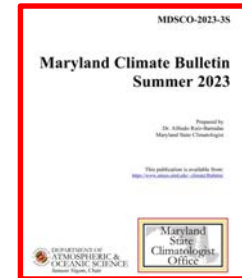
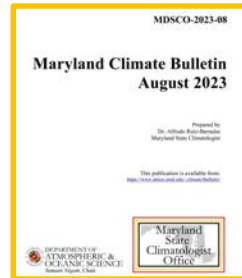
# The Maryland State Climatologist Office

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 ( $\geq 2$  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!

