Maryland State Climatologist Office

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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;

Obituary in The State Climatologist; Summer/Fall 1997
V21, no. 2 & 3
The Maryland State Climatologist Office

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.

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

Data & Monitoring

NWS Weather Forecast Offices

- NCEI
- NRCC
- NIDIS & USDroughtMonitor
- NOAA-NWS, CID, NDBC
- USGS-WW, USGS-WDb, MGS
- AirNow, MDE
- Eyes on the Bay
- CPC Mon & Seas
- NOAA Weather
- NOAA Marine

Data sets
- T, Pr maps
- Drought
- Flooding
- Hydrology
- Air Quality
- Water Properties
- Climate Forecast
- Graphical Forecast
- Marine Obs & Forecast
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• Healthy finances within the AOSC Department have allowed momentary funding for the MDSCO and the Climatologist.

• A great asset to the MDSCO:
  o 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:
  o NCEI’s nClimGrid and nClimDiv at monthly and daily resolutions
  o NASA’s Earth Exchange Global Daily Downscaled Historical Simulations & SSP126, SSP585 Projections (NEX-GDDP-CMIP6).
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These data sets have allowed us to create:

Products

Maryland Climate Bulletin:
• Monthly
• Seasonal

https://www.atmos.umd.edu/~climate/Bulletin
The Bulletin 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
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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!