

MarylandView 2020 - 2021



MARYLANDVIEW 2020 - 2021 ACTIVITIES

On July 13, 2021, MDView helped the Department of Community Planning and Development, City of Westminster, MD collect satellite and UAS imagery to evaluate tree conditions along the Main Street. We provided them with NDVI, LST, and DEM products and helped city managers better understand how different types of land uses and tree species affect surface temperature in the approximately 17 acres of Downtown Westminster.

Meeting with the Department of Community Planning and Development staff members to evaluate tree conditions for the City of Westminster, MD using UAS imagery. →





↑ Aerial view of Fox Hollow golf course



In July 2021, MDView visited Country Club of Maryland and Fox Hollow golf courses and helped property managers collect UAS imagery to evaluate grass conditions. We provided NDVI, LST, and DEM products and did a presentation on how to evaluate grass health conditions using geospatial technologies.

In October 2021, MDView organized two field trips. One field trip visited the USGS Water Science Center in Catonsville, MD. This opportunity allowed students to learn how water resources are managed and protected in the Chesapeake Bay using geospatial data and field measurements. The other one was a virtual field trip at NASA Goddard Space Flight Center. Students interacted with NASA scientists and learned much knowledge on NASA's EOS program and how remote sensing has been used by scientists to study global climate change.

MarylandView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077. ↑Aerial view of the Country Club of Maryland golf course

> Field trip at the USGS MD-DE-DC Water Science Center→





← Virtual field trip at NASA Goddard Space Flight Center



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MDView organized a workshop for geography students at Towson University on October 28, 2021, to get hands-on experience with UAS and field data collection. Students practiced flying a quadcopter UAS and taking multispectral and thermal aerial imagery for a local residential area. Fieldwork like this is often more engaging than lectures and help students gain more interests into real-world remote sensing applications.

← UAS imagery and field data collection workshop

BENEFITS TO MARYLAND

- Satellite and UAS-based remote sensing technologies have been heavily promoted among local government agencies and small businesses in Maryland to raise public awareness about the benefits of remote sensing.
- More undergraduate and graduate students have been involved in field trips and other educational
 opportunities related to geospatial technologies. In Fall 2021, students were able to attend a virtual tour at
 NASA Goddard Space Flight Center as well as visit the USGS Water Science Center to learn more about how
 remote sensing has been used by federal research and development agencies to study climate change, water
 resources, and environmental protection.
- Maryland students gain more hands-on experiences for UAS imagery and field data collection, as well as realworld applications through remote sensing fieldwork.
- Local agencies and businesses are now able to request data, service, and educational materials for geospatial technologies through our new MarylandView website.
- The preliminary results from an ongoing research project that aims to study long-term ecological and environmental conditions for the Chesapeake Bay Watershed reveal that increasing urbanization over the past three decades caused accelerated deforestation, degraded air quality, decreased evapotranspiration, and increased surface temperature.

MARYLANDVIEW CONSORTIUM MEMBERSHIP

Department of Community Planning and Development, City of Westminster, MD

Country Club of Maryland Golf Course

Fox Hollow Golf Course

USGS MD-DE-DC Water Science Center

Federal consortium members identified above do not receive funding from AmericaView.

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