

A Resolution to Urge The Ohio State University to Fund the Byrd Polar and Climate Research Center's Ice Core Facility Renovation

Keyanah Peters (for themselves, on behalf Emma Hart, Annalise Khandelwal, Mallika Malhotra, and Ria Narang) introduced the following resolution to the Sustainability Committee where it passed. Then, to the Steering Committee where it passed, and to the floor where it passed/failed.

* * *

Whereas the Undergraduate Student Government represents all undergraduate students at The Ohio State University; and

Whereas the mission of Ohio State's Byrd Polar and Climate Research Center is to "engage in world-leading research, education and outreach to enhance The Ohio State University's programs in polar and alpine regions...climate variability, etc.";¹ and

Whereas two of the twelve of The Ohio State University's National Academy of Sciences members have done groundbreaking research with the Byrd Polar and Climate Research Center; and

Whereas the Principal Investigator of the Byrd Polar and Climate Research Center, Aaron Wilson, has led the Midwest chapter of the 5th National Climate Assessment, the principal report utilized by the U.S. government to inform decision making related to the climate; and

Whereas, the Byrd Polar and Climate Research Center has created important climate change technology for scientists and policymakers such as the Reference Elevation Model of Antarctica (REMA) that shows a comprehensive model of various stages of elevation in the Arctic;² and

Whereas the Byrd Polar and Climate Research Center has housed the Ice Core Facility for over 30 years; and

Whereas the glaciers these cores originate from, found in mountainous regions in Africa, South America, and Indonesia, are melting at a rate of 275 gigatons of ice a year, with some predicted to melt entirely by 2030;³ and

Whereas the Earth's glaciers are losing 31 percent more ice per year now than they were 15 years ago, which is when or after many of the Byrd Center's cores were collected;⁴ and

¹ <https://byrd.osu.edu/about>

² https://www.researchgate.net/publication/331362835_The_Reference_Elevation_Model_of_Antarctica

³ <https://wwfeu.awsassets.panda.org/downloads/glacierspaper.pdf>

⁴ <https://www.washingtonpost.com/climate-environment/2021/01/25/ice-melt-quickens-greenland-glaciers/>

Whereas this rapid decline makes it important to preserve existing ice cores, as new ones may be unattainable;⁵ and

Whereas storing these ice cores are essential because not only are they rare, but they share important paleoclimatic history that can help researchers understand current climate change; and

Whereas the Ice Core Facility houses approximately five miles of ice from all across the world including tropical glaciers that no longer exist;⁶ and

Whereas Ice Core Facility is currently failing due to frost build up, freezers at overcapacity, leakage, corrosion of electrical boxes, and moist air entering freezers;⁷ and

Whereas some of the ice cores that have been compromised by the inefficient HVAC system are irreplaceable; and

Whereas these infrastructure issues are already impairing the Byrd Center's ability to conduct research and educational programs, and they make collecting more cores impossible without destroying other cores in the process; and

Whereas with glaciers and ice sheets rapidly melting around the world, there is a limited amount of time to collect more ice core samples, and many cores will likely never be able to be replaced, making further research impossible; and

Whereas the Byrd Center's research has been instrumental in providing evidence of global climate change, melting glaciers, and rising sea levels for decades, and ice core samples are at the center of that research; and

Whereas the Byrd Center's focus on tropical alpine ice sheets has brought awareness to the use of glaciers as the main source of fresh water for over a billion people worldwide, which will be compromised by climate change; and

Whereas Byrd Polar and Climate Research Center's official quote for the full renovation of the Ice Core Facility, including solar energy, is \$15 million;⁸ and

Whereas a student letter to administration requesting funding for the Byrd Polar and Climate Research Center was published on October 28th, 2021 and signed by 109 students;⁹ and

⁵ <https://www.sciencedirect.com/science/article/pii/S0921818121001235#bb0305>

⁶ <https://byrd.osu.edu/giving/ice>

⁷ <https://byrd.osu.edu/giving/ice-core-facility-renovation/freezer>

⁸ Quote for the renovation provided by Michele Cook, Administrative Manager for the Byrd Center

⁹ https://byrd.osu.edu/sites/default/files/2022-03/BYRD_STUDENT_LETTER_JAN_13_2022.pdf

Whereas the staff at Byrd have been requesting capital funds for 10 years;¹⁰ and

Whereas that request for capital funding has been ignored by administration; and

Whereas the Byrd Polar and Climate Research Center has only been able to raise approximately \$800,000 on its own; and

Whereas the Byrd Polar and Climate Research Center has petitioned all other avenues for funding, including the National Science Foundation; and

Whereas the National Science Foundation has stated that funding cannot be allocated to renovations in infrastructure for the Byrd Polar and Climate Research Center; and

Whereas the 54th General Assembly passed 54-R-18: A Resolution to Request More Funding from Ohio State University for the Byrd Polar and Climate Research Center; and

Whereas the Undergraduate Student Government previously passed the resolution (54-R-18) supporting the funding of the Ice Core Facility Renovation through the Council on the Physical Environment (COPE), the Inter-Professional Council (IPC), and the University Senate Steering Committee where the resolution was referred to the Senate Fiscal Committee; and

Whereas Senate Fiscal referred the resolution to the Office of Research, and no further progress has been made despite ongoing meetings with the Office of Research and Ohio State administrators; and

Whereas the Sustainability Committee in the Executive Branch of the Undergraduate Student Government has made it their mission to advocate for funding for the Byrd Polar and Climate Research Center; and

Whereas, the Undergraduate Student Government houses a Sustainability Committee with a mission to “improve our environmental ethic as a campus and to enhance students’ understanding of important issues such as climate change, waste reduction, and habitat loss”;¹¹ and

Whereas, Ohio State’s Sustainability Goal #4 states the University wants to “magnify sustainability scholarly input and output... and increase Ohio State’s national/international reputation as a sustainability research leader”;¹² and

Whereas Ohio State Sustainability Goal #3 states the University will reward sustainability scholarship by providing incentives for students, faculty and staff to make discoveries to promote and achieve sustainability; and

¹⁰ <https://news.wosu.org/show/all-sides-with-ann-fisher/2020-10-27/racing-to-save-earths-climate-record#stream/0>

¹¹ https://usg.osu.edu/commit/issues_committees/sustainability

¹² https://www.osu.edu/assets/pdf/sustainability/SustainabilityGoalsSummary_Communicators.pdf

Whereas the Byrd Polar and Climate Research Center is an integral piece in completing these goals and cannot function without more funding; and

Whereas a business plan has been developed indicating the potential return on investment; and

Whereas renovations for the Byrd Polar Research and Climate Center will pay for itself within nine years; and

Whereas the Byrd Polar and Climate Research Center offers scholarships to undergraduate, graduate, and postdoctoral students to support climate research projects, as well as internship opportunities for high school students for career coaching; and

Whereas the Byrd Polar Climate Research Center brings premier research opportunities to students that are not accessible or available at other universities; and

Whereas the Byrd Polar and Climate Research Center currently has 20 graduate students and 5 postdoctoral fellows who are doing critical research on Climate Analytics, Earth Systems Modeling, Measuring the Water Cycle, and Glacier Environmental Change; and

Whereas the Byrd Polar and Climate Research Center has on average 100 student publications per year since 2005 with 103 student publications in 2023 alone; and

Whereas funding for the Byrd Polar and Climate Research Center will only further student research at the university in these research areas that have become increasingly important to understand the environment.

Therefore, Let it Be Resolved the Undergraduate Student Government calls on The Ohio State University to grant the Byrd Polar and Climate Research Center a minimum of \$15 million for the full renovation of the Ice Core Facility; and

Let It Further Be Resolved the Undergraduate Student Government encourages the University to utilize its funding from the grant offered by the Department of Energy and the West Campus Innovation Fund; and

Let it Further Be Resolved the Undergraduate Student Government calls upon the University to recognize its commitment to sustainability and continuing research on climate change and its effects; and

Let it Further be Resolved the Undergraduate Student Government pledges to protect the vital research of the Byrd Center and calls upon the University to do the same.

Floor Vote: Aye: ____ Nay: ____ Abstain: ____ Present: ____

Bobby McAlpine
President

Alex Poling
Speaker of the 56th General Assembly

Date Adopted: _____

Date Terminated: _____