



AMERICAN ASTRONOMICAL SOCIETY

Office of the President

July 10, 2018

Angela Olinto, Dean, and Edward W. Kolb, Immediate Past Dean
Division of the Physical Sciences
The University of Chicago
5640 South Ellis Avenue
Chicago, Illinois 60637-2745

Dear Drs. Olinto and Kolb,

I am writing you on behalf of the Board of Trustees of the American Astronomical Society (AAS) to express our concern about the future of Yerkes Observatory once the University of Chicago ceases operations there on October 1. Because Chicago's observing programs now use instruments deployed throughout the world, as well as in space, we understand why operating this historic facility is no longer justified. Your commitment to engaging with the local community and non-profit groups to transition this unique resource to an organization that will preserve and revitalize it is laudable. We encourage you to be proactive in this process so that Yerkes' next 121 years will be as vibrant as its illustrious past.

As astrophysicists, you both know that the AAS with its 7,000 members from all over the world is the major professional organization of astronomers in North America. Sharing and enhancing scientific understanding of the universe is the AAS mission, and this includes a respect for and appreciation of astronomical history. The AAS also has historic ties to Yerkes. George Ellery Hale, Yerkes' founder, was instrumental in establishing both our society and its premier publication, *The Astrophysical Journal*.

Home of the world largest functioning refractor since 1897, Yerkes Observatory helped shape the discipline of astrophysics during the 20th century. Its instruments and records are of unique importance for astronomy's history. The American optical firm Alvan Clark & Sons ground the lenses for the 40-inch refractor, the last of five "world's largest" telescopes it built. Before the telescope's installation at Williams Bay, Wisconsin, visitors from around the world marveled at its massive Warner and Swasey mounting during the 1893 Columbian Exposition, signaling the ascension of the United States to world leadership in observational astronomy. Yerkes Observatory work has been cited over 10,000 times in peer-reviewed astronomical literature since its founding.

A few examples of the key role of Yerkes in the history of modern astronomy are:

- Hale's vision that Yerkes' new world-class instrument be the core of a multi-disciplinary research facility linking physics and chemistry to the telescope, and thus the stars, vastly expanded what astronomical observatories were expected to be.
- In the spirit of Hale, Otto Struve, in the 1930s and 1940s, built at Yerkes one of the most powerful research teams in the world. His integration of observational and theoretical work made forever experimental and theoretical physics a central part of astronomical practice.

Struve's own spectroscopic studies exemplified this approach, as did the subsequent similar work of Gerard Kuiper, Bengt Strömberg, W. W. Morgan and Jesse Greenstein.

- Many other noted astronomers have worked at Yerkes. One can mention E. E. Barnard, Edwin Hubble, Carl Sagan and, especially, Subrahmanyan Chandrasekhar, who developed his Nobel Prize-winning ideas on stellar structure there.
- For over five decades, Yerkes was the home base for *The Astrophysical Journal*. This was the period that saw astronomical papers evolve from mainly reporting observations to presenting astrophysical interpretations.

Without doubt, Yerkes Observatory occupies a very special place in astronomical history.

We hope the University of Chicago will take the incomparable astronomical legacy of Yerkes to heart and do all it can to preserve the observatory's historical integrity. The transition plans you eventually accept for the facility, its grounds, and its collections must respect their important roles in the history of American astronomy. Specifically, we dearly hope that:

- The 40-inch refractor will be maintained in safe operating condition along with its dome and the innovative rising floor used for viewing.
- Those portions of the observatory grounds with historical significance, including the magnificent main building, will remain and not be significantly modified from its present – original – design.
- The integrity of the scientific instruments of historical interest and the scientifically valuable photographic plate collection will be preserved, as will as any archival papers not yet included in the holdings of the University.
- The historic spaces and instruments will remain accessible to the public and historians on a regular basis for educational or study purposes.
- The archival items will have proper care and eventually be cataloged to ensure long-term availability to relevant research and museum communities.

Whoever is chosen to assume control of the facility, as well as the Village of Williams Bay, need to be made aware of these expectations. Both the AAS Working Group on the Preservation of Astronomical Heritage and our Historical Astronomy Division are willing to offer advice when that would be helpful. On behalf of the AAS membership, I would appreciate an update on your plan for selecting a successor who will embrace the responsibility of preserving this historic facility.

Sincerely,



Dr. Megan Donahue, AAS President

cc: Robert J. Zimmer, President, University of Chicago
David Fithian, Executive Vice President, University of Chicago
Derek Douglas, Vice President for Civic Engagement and External Affairs, University of Chicago
John Carlstrom, Subrahmanyan Chandrasekhar Distinguished Service Professor, University of Chicago