

C Alliance for the Construction of Telescopes, Records, 1983-1989
1399 .4 linear feet

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INTRODUCTION

The records of the Alliance for the Construction of Telescopes (ACT) consist of correspondence, proposals, technical design and site studies, meeting announcements, newsletters, brochures, notes, and magazine articles.

DONOR INFORMATION

The Alliance for the Construction of Telescopes Records were donated to the University of Missouri by Charles J. Peterson on February 16, 1993 (Accession No.5260)

BIOGRAPHICAL SKETCH

The Alliance for the Construction of Telescopes (ACT) was created by astronomers at the University of Minnesota who attempted to create a fund of several million dollars to construct a major astronomical observatory. In order to make this a reality, it was realized that the potential fund would have to be doubled. Other institutions were invited to participate in the consortium. In association with the astronomers at the University of Missouri-St. Louis (UMSL) and the University of Missouri-Columbia (UMC), other institutions joined in the deliberations and activities, which eventually included actual site surveys in the American Southwest and initial telescope design work. However, not enough interest was generated within the UM system, although UMSL was able to generate several thousand dollars to pay for membership fees which were used, in part, to support the site surveying and the telescope planning. Competition from other consortia with similar goals, the failure of any member institution to guarantee significant financial or political support, and particularly the problems that developed at Minnesota which led to their relinquishing leadership, all contributed to the demise of ACT.

SCOPE AND CONTENT NOTE

The Alliance for the Construction of Telescopes (ACT) consists of correspondence, proposals, technical design and site studies, meeting announcements, newsletters, brochures, notes, and magazine articles. The material is focused on developing a proposal for the creation of several modern, high-powered telescopes to further develop projects and studies, which would improve the astronomy programs at the respective participating institutions. These records provide an important insight into how academic institutions relate not only to their respective administrations, but also how the different institutions communicate and work with each other to achieve a common goal, or fail to. The records are arranged into three series:

Correspondence

Telescope Design and Site Studies

Proposals

The **Correspondence** series consists of correspondence dealing with upcoming meetings of the ACT; along with departmental correspondence; correspondence of University of Missouri President C. Peter Magrath discussing possible participation in the alliance; correspondence between member universities in the consortium, and meeting minutes. Also included is a copy of

the Articles of Incorporation of the Astrophysical Research Consortium, (ARC), along with a Consortium Agreement. The correspondence is arranged chronologically

The **Telescope Design and Site Studies** series consists of design goals and a general description of telescope components, along with a cost estimate. In addition, there are studies of telescope optical performance, mechanical design, and general concept considerations, which include further technical descriptions. Other considerations in the telescope design study include assembly and testing prior to delivery; site assembly costs and a study of "standard" technologies, which would be adaptable to the project.

The site studies include field trips to various locations to determine the feasibility of building a multiple-telescope observatory there (the sites studied already had some observatories in place). Some of the locations visited were Capilla Peak and Sacramento Peak (Apache Point) in New Mexico and Mt. Graham in Arizona. Factors which were measured during the site studies included the amount of light pollution; the amount of dark sky periods; amount of clear sky conditions for sunrise; dust levels; road access/conditions; existence of dorms/living facilities and what their conditions were; the amount of cooperation which could be expected from the National Park Service in regard to road maintenance and building on the sites, and environmental impact.

Included in these studies are mathematical calculations, maps, charts and graphs. Cost studies are also included, and were a constant consideration. The design and site studies are arranged chronologically date.

The **Proposals** series consists of typed copies of reports and discussions of the current state of astronomy at major universities, as well as a statement for change and outlines of the reasons why new telescopes should be built. There is also correspondence of President C. Peter Marath regarding university participation in the consortium and proposed telescope design studies to be performed by engineering companies.

Emphasis is placed on the need to produce a greater number of trained astronomers in the upcoming decades. In order to do this, it was felt that more observation time with telescopes was required. At the time of these proposals time for use of the major existing telescopes was limited.

In addition, there are proposed overall cost estimates, a copy of a proposal to build a Multiple Telescope Observatory (MTO), and invitations for the University of Missouri to participate in the Telescope Consortium. There is also a listing of personnel involved in astronomical research in the state of Missouri at that time. The proposals material is arranged chronologically.

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