



News Release

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AGREEMENT FOR 8-METER TELESCOPE

SIGNED BY CARNEGIE, ARIZONA, HOPKINS

James D. Ebert (president of the Carnegie Institution of Washington), Henry Koffler (president of the University of Arizona), and Steven Muller (president of the Johns Hopkins University) have signed an agreement to join in a project to build and operate an 8-meter telescope at Las Campanas, Chile. The future telescope will serve for observations in the optical, infrared, submillimeter, and millimeter wavelengths, and should open opportunities for the exploration of the Universe far beyond what are now possible.

The agreement, officially dated 1 October 1986, provides that capital investment, operating costs, and allocations of observing time will be at the following levels: Carnegie Institution 50%, University of Arizona 25%, Johns Hopkins 25%. The cost of constructing the telescope is expected to be approximately \$25-30 million (1985 dollars). Future negotiations with the University of Chile may result in allocations of observing time to Chilean astronomers for meritorious proposals, without cost.

Policy and priorities for constructing and operating the telescope will be set by a Telescope Council, chaired initially by the director of

Carnegie Institution's Mount Wilson and Las Campanas Observatories and having three other members, one from each of the three participating institutions.

Carnegie Institution will undertake the principal management role both in the construction and operation of the telescope. Ray J. Weymann became director of Carnegie's Mount Wilson and Las Campanas Observatories on 1 July 1986. His predecessor, George W. Preston, who served during much of the planning for the agreement now being announced, is now a staff member at the Observatories. W. Albert Hiltner has been designated Project Manager, reporting to the chair of the Telescope Council.

The capital contribution of the University of Arizona and part of its early operating cost contribution will be the provision of the primary mirror of approximately 8-meter aperture and focal ratio near $f/1$. In a May 1986 talk, Preston described the Carnegie Institution's strong interest in the rotating-furnace technology for casting large mirrors being developed by Roger Angel and colleagues at Arizona (in part funded by the National Optical Astronomy Observatories). Preston pointed out that the technique permits the casting of mirrors of short focal length, thus affording economy of design.

Las Campanas is widely regarded as a superior site for ground-based astronomy. Its dark nighttime sky far from city lights, its stable and dry atmosphere, and its ideal latitude for observing the Southern skies are unsurpassed elsewhere. Carnegie Institution founded the observatory there in 1969; its 2.5-meter Irene du Pont telescope entered service in 1977. The du Pont telescope regularly produces images among the world's finest. (Other telescopes now at Las Campanas are Carnegie's 1-meter

wide-angle Swope telescope and a 24-inch telescope of the University of Toronto.)

Each party to the agreement brings special assets. Carnegie and Arizona bring long experience in operating telescopes at remote sites and instrumenting them; Hopkins brings considerable experience in astrophysical research from space vehicles. Carnegie contributes its superior observing site, and Arizona brings its capabilities for casting large mirrors. The astronomers of the three institutions are convinced that future leadership in spaceborne observation will require access to advanced telescopes on the ground, for conceiving, planning, and following-up the critical observations in space.

Weymann looks forward to completion of the telescope in the early 1990's. He comments: "There are extremely tantalizing astronomical research programs that the telescope will bring within reach--certain investigations into the large-scale structure of the Universe, for example, and new approaches to its history and evolution."

The offices of Carnegie's Mount Wilson and Las Campanas Observatories are in Pasadena, California. In May 1985, the Institution's trustees resolved to proceed toward an 8-meter telescope at Las Campanas and to seek partners in the venture. In recent months, detailed site testing has been started at Las Campanas, and scientific specifications for the future instrument are being developed. Meanwhile, in order to concentrate its resources on developing Las Campanas, Carnegie is seeking to find other operators for its historic telescopes at Mount Wilson.

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