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To the Honorable Secretary of the Navy
Washington, D. C.

Dear Mr. Secretary:

I am writing this letter to express outappreciation to the Navy for giving leave to Captain C. S. McDowell for the sake of enabling him to assist the California Institute of Technology in its very important task of designing and constructing the mounting and the dome for its new giant telescope. The significance and the magnitude of this enterprise is not commonly fully appreciated. It is far and away the largest and most important astronomical undertaking ever attempted. The mere slab of pyrex glass, out of which the mirror is made, will weigh approximately sixteen tons. When this telescope is completed it should bring into view a volume of space twenty-seven times larger than that now available for photographic studies of the stars by the largest telescope now existing, which is the 100" reflector of the Mount Wilson Observatory. The time, which was originally estimated for for getting this new telescope into operation, was twelve years, and the cost approximately \$6,000,000. No such monumental undertaking in the interests of astronomical science has ever before been attempted.

The reason, then, that we have sought aid from and cooperation with the Navy in this undertaking, is, that so far as we know there is no other organization, institution or individual possessed of such an experience in the design and construction of heavy, precision instruments. In the work with its heavy gun mounts the Navy has had problems of an allied kind. Furthermore, Captain McDowell has spent the greater part of his life, either as an inspector for the Navy in connection with its large engineering enterprises of a similar nature, or else in the scientific research and developmental activities of the Navy as illustrated in the work of the New London Experiment Station during the War.

From our point of view, therefore, it is of the utmost importance to be able to utilize the experience and

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the skill of the Navy in this new enterprise, for which we, at the California Institute of Technology, have the responsibility and we know of no one in the Navy whose experience and contacts with the heavy manufacturing industries of the United States makes him more suitable for this work than Captain C.S. McDowell.

I am writing this letter for the sake of making official acknowledgement on the behalf of the Trustees of the California Institute of Technology, of our indebtedness to you for this service, as well as of our hope and expectation that the interests, both of the Navy and of the California Institute of Technology, will be served through this cooperation.

Very sincerely yours,

RAM:VH

Robert A. Millikan