

University of Hawaii

Annual Progress Report

Submitted to the

National Aeronautics and Space Administration

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"Outer Solar System Nomenclature"

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Submitted by

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OUTER SOLAR SYSTEM NOMENCLATURE

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The work to be carried out on the subject grant during the next funding period will center on names needed for surface features on the Galilean satellites of Jupiter, names for the newly discovered satellites of Uranus, and the development of a nomenclature scheme for surface features on Titan.

In the case of the Galilean Satellites, the on-going Galileo mission is producing new images that continually lead to requirements for new names. These names are being supplied from name banks established according to the guidelines our Task Group established during the Voyager flybys 20 years ago. These names then require approval by the full Working Group and by the IAU General Assembly.

We also have guidelines for naming new satellites in the Uranus system. These were applied successfully in the naming of Sycorax and Caliban last year. We are now working with the discoveries of the new satellites to establish names that conform to this tradition. Once again, these names must go through the usual approval procedure.

There are now maps of the surface of Titan obtained by ground-based and orbiting telescopes that use windows in Titan's near IR spectrum to observe the surface. These observations reveal surface features that have not changed for the last several years. Thus we have been working to develop a nomenclature scheme that can be use to name these features and to provide a source of names for the finer-scale features we anticipate from the Cassini-Huygens mission starting in 2004. Given the highly probable existence of lakes of liquid hydrocarbons on Titan's surface, we are contemplating the use of a name bank founded on an aquatic environment on Earth, such as Venice. Another possibility under consideration is the use of names from the mythologies of extinct civilizations.

All of these matters will be presented for discussion and approval at the meeting of the full Working Group for Planetary and Satellite Nomenclature, of which Owen is a member, that will be held in conjunction with the IAU General Assembly in Manchester, England, in August of 2000. Preliminary discussions with other members of the Task Group and the Working Group will be held during the European Geophysical Society meeting in Nice, France, in April 2000.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tobias Owen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Tobias Owen, PI