Review of the Application for UCAR Membership Renewal

for

The University of California, Davis

by,

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The University has been a UCAR member since 1983.

Programs of Studies and Research

The program of studies and research at UC Davis comprises the Atmospheric Science Graduate Group, the Hydrologic Sciences Graduate Group, the Department of Land, Air, and Water Resources, and the Departments of Civil Engineering, and Earth and Planetary Science.

Atmospheric Science

The Atmospheric Science Graduate Group (ASGG) conducts instruction and research in the fields of Atmospheric Chemistry and Air Quality, Biometeorology and Micrometeorology, Mesoscale and Boundary-layer Meteorology, Climate Dynamics, Computational Geosciences, and Extreme Weather. The program has 17 tenured/tenure-track faculty members from 7 departments. The ASGG promotes interdisciplinary research by drawing faculty members from seven departments in three Colleges. The Land, Air, and Water Resources (LAWR) department administers an Atmospheric Science undergraduate (BS) degree program. The ASGG administers Masters Thesis and Masters Exam degree (MS) and doctoral degree (PhD) programs, having awarded 13 MS and 12 PhD degrees over the last 5 years. New majors in coastal and marine sciences at the undergraduate and graduate levels are being developed.

Hydrologic Sciences

The Hydrologic Science Graduate Group (HSGG) is a cross-campus interdisciplinary program offering M.S. and Ph.D. degrees. Course work is available from many programs, including Hydrologic Science, Civil and Environmental Engineering, Biological and Agricultural Engineering, Geology, and Soil Science. The program has degree options in Hydrobiology, Hydrogeochemistry and Hydrology. The program has 26 tenured or tenure-track faculty members from 5 departments, with most from the LAWR department, which administers the Hydrologic Sciences undergraduate (BS) degree program. The HSGG administers the Master of Science
(MS) and doctoral (PhD) degrees. During the past 5 years, the HSGG has awarded 25 MS and 7 PhD degrees. The program is the home of a 5-year NSF IGERT that integrates hydrology, climate, and policy topics related to water resources in a changing climate.

**Progress in the Atmospheric and Related Sciences**

Research in UCAR-related sciences at UC Davis spans the fields of Atmospheric Science and Hydrologic Sciences, with funding of more than $10M annually, provided by numerous agencies including the USDA, NSF, DOE, EPA, NASA, NIH, US Army, US Navy, California State Air Resources Board, Water Resources Board and others. Faculty members in the ASGG have published more than 335 journal articles and in the HSGG, from the 12 hydrology faculty in LAWR more than 230 journal articles in the past 5 years.

**Participation in UCAR Activities**

UC Davis regularly sends representatives to the UCAR Annual Members Meetings and participates in CESM workshops. Faculty members participated in the 2011 US CLIVAR/NCAR ASP Researcher Colloquium and serve on NCAR Observing Facilities Assessment Panel and UCAR committees. Research at UC Davis includes frequent collaborations with NCAR scientists and frequent use of NCAR facilities. Of particular note are usage of Yellowstone super computer for a climate modeling class and co-organizing a US CLIVAR/NCAR summer colloquium, planning of the OASSIS field campaign, and service as co-organizers of two workshops on modeling hosted by UCAR.

**Summary and Recommendation**

The program of atmospheric and related sciences at the University of California, Davis clearly satisfies the three primary requirements for membership in UCAR: a strong program of study and research, significant contributions to progress in the atmospheric and related sciences, and a high level of participation in UCAR activities. Therefore, the Membership Committee recommends renewal of the UCAR membership of UC Davis.