Old Dominion University

Old Dominion University (ODU) has been a UCAR member since 2004. The Department of Ocean, Earth and Atmospheric Sciences (hereafter OEAS) is the primary academic unit at ODU that is engaged in UCAR-related studies and research. The research and instructional program in OEAS comprises the fields of oceanography, biogeochemistry, and climate sciences, with areas of specialization in biological, chemical, geological, and physical oceanography. OEAS offers a B.S. in ocean and earth sciences with emphases in oceanography (biological, chemical, and physical), geology, and earth science education; an M.S. in ocean and earth sciences; and a Ph.D. in oceanography. All undergraduate majors participate in a capstone field research experience. There currently are 165 undergraduate majors and 52 graduate students enrolled in OEAS degree programs. During the past five years, 68 students have received undergraduate degrees, and 51 have received graduate degrees (31 M.S. and 20 Ph.D. degrees). It is stated in the renewal application that the majority of undergraduate degree recipients advance to graduate programs in the earth sciences or to employment in the federal and private sectors; comparable placement information is not provided for graduate degree recipients.

The renewal application lists 26 full-time faculty members in OEAS, 24 of whom are tenured, and states that two faculty candidates in oceanography are in the final stages of recruitment. In addition to faculty based in OEAS, the application refers to faculty with interests in the ocean, earth, and atmospheric sciences who hold joint appointments in OEAS but are based in other departments at ODU. Within the fields of oceanography, biogeochemistry, and climate sciences, faculty expertise exists in ocean margin and coastal system processes, coupled quantitative models, and biogeochemistry. OEAS faculty receive substantial external funding (approximately $4.41 million during FY11) from federal sources (NSF, NOAA, NASA), as well as from state and private sources, and publish regularly in the peer-reviewed literature (27 papers in 2011). The faculty are active participants in the earth science community, occupying leadership positions regionally (ODU Climate Change and Sea Level Rise Initiative), nationally (NSF GEOTRACES program, Bering Sea Ecosystem Study program, NASA astrobiology program, and NSF Ocean Observing Science Committee), and internationally (Integrated Marine Biogeochemical and Ecosystem Research and Global Biosphere programs). OEAS relates to UCAR primarily through data and computing, with faculty routinely accessing UCAR-supported archives of atmospheric analyses and oceanographic climatologies. A number of faculty involved in large-scale observational and modeling programs also contribute their datasets to these archives for access by other investigators. The OEAS contribution to UCAR governance has been modest, with regular participation in the UCAR salary survey and the Annual Members’ Meeting cited in the renewal application.

OEAS has linkages to the Center for Coastal Physical Oceanography (CCPO) and the Geospatial Interdisciplinary Studies Initiative at ODU, the former of which was established in 1991 to “promote research on the physical oceanography of the coastal ocean and related oceanographic processes,” and the latter very recently to “provide intellectual capacity and critical infrastructure for emphasis on climate change impacts on the region” through the application of geographic information systems. OEAS computing services are supported by the university and the CCPO, where specialized facilities are maintained by a full-time systems engineer. OEAS maintains a 55-foot research vessel (R/V Fay Slover) for
various coastal research projects, as well as three small vessels for near-shore investigations.

The UCAR Membership Committee concludes that the membership criteria are fulfilled, and recommends to the Members’ Representatives that the membership of Old Dominion University be continued as provided by the bylaws.