US Naval Observatory, Astronomical Applications Department

This report covers activity in the Nautical Almanac Office (NAO) and its parent organization, the Astronomical Applications Department.


(b) Software. An update of the Multiyear Interactive Computer Almanac, MICA version 2.1, was completed and released in December 2006. The software is available in two editions for computers running Microsoft Windows and Apple Mac OS operating systems. A new version of the Naval Observatory Vector Astrometry Subroutines (NOVAS) that implements relevant IAU resolutions adopted in 1997 through 2006 was essentially completed. The software will be available in both Fortran and C editions. A major redesign of the Astronomical Applications Department Web site (http://aa.usno.navy.mil/), which included several new data services, was launched in September 2007. Usage of the Web site varied from about 0.5 to 1.3 million visits per month.

(c) Research. An active research program in positional and dynamical astronomy is underway within the department. Research topics included new methods of celestial navigation, determination of asteroid masses, and the theory of bodily tides.